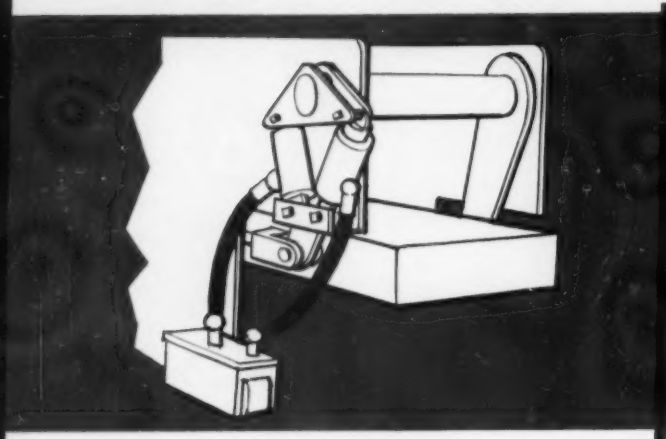
AUGUST 1959

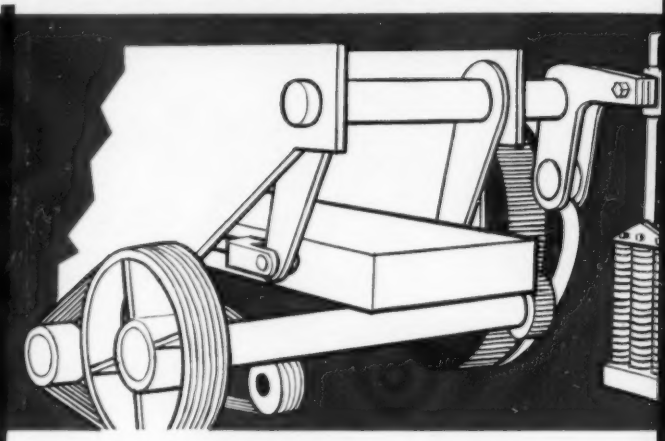
CONCRETE

From machine to autoclaves to unloading—
block move automatically by monorail at CBU

HERE'S WHY MAINTENANCE COSTS ARE LESS WITH HYDRAULICS!

BASICALLY, SIMPLICITY AND HEAVY CONSTRUCTION MAKE THE DIFFERENCE. FOR INSTANCE, LET'S COMPARE JUST THE SIMPLE HYDRAULIC SYSTEM USED TO OPERATE THE FEED DRAWER ON A MODERN GOCORP "TRUSTEE" WITH THE COMPLEX POWER TRAIN REQUIRED TO DO THE SAME JOB ON A CAM MACHINE.





MODERN HYDRAULIC "TRUSTEE" FEED DRAWER
Parts Required

1 Hydraulic manifold (which also serves numerous other operations.)
2 Hydraulic hoses
2 Single Action, Hydraulic Cylinders, each of which includes:
- 1 Ram
- 2 Sets of packing
- 2 "O" Ring Seals

2 Brackets
4 Cylinder Pins

CAM OPERATED FEED DRAWER
Parts Required

1 Motor Sheave
4 Large "V" Belts
1 Counter Shaft Driven Sheave
1 Counter Shaft
2 Counter Shaft Bearings
1 Counter Shaft Drive Sheave
6 Extra Large "V" Belts
1 Large Cross Shaft Sheave
1 Large Cross Shaft
2 Cross Shaft Bearings
1 Cross Shaft Pinion Gear
1 Gigantic Bull Gear and Cam
1 Bull Gear Shaft
2 Bull Gear Shaft Bearings
1 Cam Follower
1 Cam Follower Roller
2 Cam Follower Bearings
1 Spring Shaft and Bracket
4 Yards of large diameter tension springs
1 Spring Anchor Bracket

Plus dozens of feet of lubricating tubing, dozens of lubrication fittings, nuts, bolts, keys, set screws, brackets and what have you.

AND REMEMBER, this is just *one* example of the maintenance savings that result from the use of hydraulics *throughout* GOCORP "TRUSTEES."

Be honest with yourself, now. Parts subject to wear, do wear out and have to be replaced. The parts cost enough but you also have the extra down time and the non-productive repair time of at least two men.

Sure, you have things go wrong with GOCORP "TRUSTEES," too, but you don't have to pull a bunch of shafts; do a lot of retiming and refitting; or back breaking juggling. Cylinders can be changed in a few minutes, hoses in the blink of an eye—and you get smoother, faster action to boot.

Modern, heavy machinery in practically every field has switched to hydraulics for power transmission. (Automobiles, road building equipment, cranes, machine tools—to name a few).

Times are changing, *HOW ABOUT YOU?*

ALSO:

- ★ "Special" TRUSTEE—with many features of the "Super"
- ★ 2X and 2½X TRUSTEE Thrifty Models
- ★ RACKMAN Automatic Loaders and Unloaders —Synchronized or detached
- ★ Mixers, Skips, Cubers, Offbearers and other allied equipment

SEE RACKMAN IN ACTION
ASK TO SEE GOCORP'S MOVIE, "1,000 PROFITS AN HOUR"

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SATISFACTION

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concrete
and satisfaction
than any
other
make

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Milwaukee 1, Wisconsin • Lufkin, Texas
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Los Angeles, California

NOW...wherever you are!

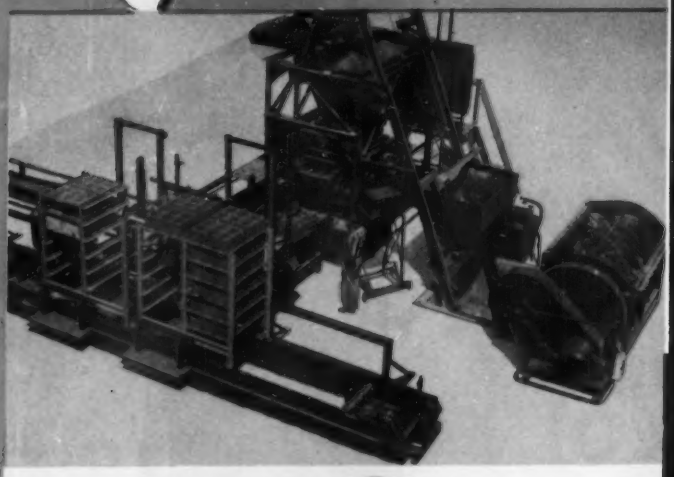
You'll find a plant that is increasing production with

Columbia's NEW AUTOMATIC RACK LOADER AND UNLOADER...

...JUST ONE YEAR AGO... after more than two full years of testing... Columbia installed its first Automatic Rack Loader and Unloader.

...TODAY... more than 45 progressive block plants, in the United States, Canada and other parts of the world* are using this completely automatic machine to build **GREATER PROFITS** through increased production, lower labor costs, and higher quality block.

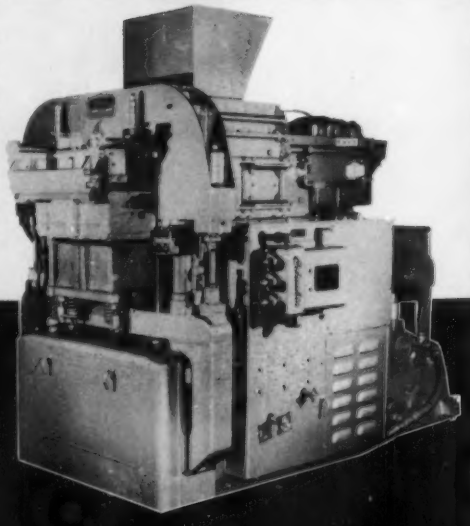
Designed to fit all Columbia machines and easily adaptable to most others, the new Columbia Loader and Unloader brings automation to the production of concrete blocks, reducing man-hours as much as 40%. This modern method of building blocks will provide you with the additional production capacity needed to meet the ever-increasing demand for concrete masonry and can be easily bought on a pay-as-you-depreciate basis.



*Ask your Columbia representative or write us today for information and the name of plant nearest you.

THE SUPER 10

Designed to give you up to 20% higher production, with less maintenance, easier and faster field service. The electronically controlled and hydraulically powered SUPER 10 is ideally suited to the plant where complete automation is either now in progress or planned for in the future.



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Home Office: 107 Grand Blvd., Vancouver, Washington
Factory Branch and Warehouse: Mattoon, Illinois
Parts Depot and Office: Burbank, California

Manufacturers and world wide distributors of a complete line of plant equipment for production of concrete products

AUGUST 1959

CONCRETE

For producers of concrete block, precast and prestressed concrete products and ready mixed concrete

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Ready Mix Industry Survey 22

NRMCA's annual survey reports on 1958 production, products, machinery used, markets and uses of products, in a full range study of the ready mix industry.

Monorails Automate Handling 14

Block at Concrete Building Units moves automatically from block machine into and out of the autoclaves and on to unloading area in an unusual automated handling set-up.

Running A Plant Safety Meeting 20

A plant employee, in charge of conducting safety meetings, gives highly practical pointers to "meeting managers."

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A combination story showing in pictures both a new roofing unit plant and how they make their product.

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VAC
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Mr. Donati points to one of many new types of units used in developing his home-building market.

"The new forms of concrete masonry have put our company right in step with today's growing housing market!"

Says* DANTE DONATI, *President, Duracrete Block Co., Inc., Manchester, N.H.

"We've had excellent success with our new concrete masonry units. They have the beauty and color that attract home buyers . . . plus the variety of shapes and sizes that give architects and builders greater design opportunity."

Block producers across the country are discovering the untapped profit opportunities in producing the newer forms of concrete masonry.

The reasons for success are simple. New shapes, textures and colors appeal to the home buyer's sense of beauty . . . match his idea of modern living. They help the architect achieve greater design interest . . . give the builder a home that practically sells itself on sight.

And a growing number of financing agencies have found today's concrete masonry homes a sound investment. They suit any region, any neighborhood, any family. Why don't *you* investigate the volume and profit potentials of this modern masonry material . . . new-type *living concrete!*

PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of concrete

NEW-TYPE
living concrete

News

Brooke Acquires Control of Nat'l. Brick & Supply

Ownership of the National Brick & Supply Co., Inc., has been acquired by Edmund H. Brooke, former vice president and general manager.

Business will continue under the National name with general offices at the plant at Terra Cotta, Washington 11, D. C.

Brooke is president and treasurer. John J. McNerney, MCE, is vice president.

National manufactures Solite concrete masonry units, concrete brick, the Dox block floor and roof system, and sells other masonry materials.

Daily production capacity of the plant, which has a large autoclave installation, is approximately 30,000 of 8x8x16" equivalents of block and 50,000 concrete brick.

Michigan CPA Meets Aug. 17-19

The Concrete Products Assoc. of Michigan will have their bi-monthly general meeting at Grand Hotel, Mackinac Island, Mich., with meeting arrivals on Sunday, Aug. 16 and departures Wednesday, Aug. 19.

NAHB, PC Study Ad, Promotion Spending

The effectiveness of building products and materials manufacturers' advertising and promotion dollars tied to home sales received a thorough examination July 23 at a conference between home builders and the manufacturers' advertising representatives.

"Advertiser Meets the Builder", a unique all day session in the National Housing Center, Washington, D. C., brought together a geographical and volume cross-section of builders and manufacturers' internal and agency advertising executives.

The builders presented a first hand report of their marketing problems in the major fields where the manufacturers' dollar is spent and offered suggestions to make it more effective.

Topics covered included promotion material supplied the builder by the manufacturer, manufacturers' trade advertising, direct mail sent builders by manufacturers, manufacturers' consumer advertising and manufacturers' promotion material supplied the consumer through the builder.

The one day conference was a project of the Joint Committee of the National Association of Home Builders and the Producers' Council.

Block, Masonry Designs Win Scholarships

Competition winners at VPI: from left, Robert Karn, first prize; Don Blevins, second prize; John Hunton, third.

Eight senior students of architecture at the University of Virginia and Virginia Polytechnic Institute have won cash prizes totalling $1,500 in the sixth annual "Solite Competition Award" contest, it has been announced by A. Cabell Ford, director of sales for Southern Lightweight Aggregate Corporation.

First place winner in the University of Virginia competition was Irvin Michael Kroskin of Norfolk, Va. Robert Karn of Rockville, Md., was first place winner at VPI.

Fourth year students of architecture at the University of Virginia competed in the design of a city hall for Harrisonburg, Va. Paul Haley Barkley, Jr., of Arlington, Va., was second place winner in the contest. Ward Joseph Miles, of Silver Spring, Md; Robert Stanley Piland, Jr., of Warwick, Va., and Danny B. Bolt of Hollins, Va., tied for third place.

Second place winner in the VPI competition for the design of a convention center was Donald Blevins of Williamson, W. Va., John Hunton of Falls Church, Va., placed third.

Award winners received an expense paid trip to the annual meeting of the Virginia Chapter of the American Institute of Architects held in Charlottesville recently.

The competition for fourth year students of architecture at the two Virginia schools is sponsored annually by Southern Lightweight Aggregate, producers of Solite lightweight structural aggregate. The contests are designed to promote new and imaginative uses of Solite, both in structural concrete and in lightweight masonry units.

News

Cook Named GM For Texas Industries Div.

Walter R. Cook has been named general manager of a newly created Dallas division of Texas Industries, Inc., Ralph B. Rogers, president, has announced.

The Dallas division includes Dallas Lightweight Aggregate Co., Texcrete Co., Texcrete Structural Products Co., Texcrete Mosaic Corporation and Trusdeck Company.

Cook, a vice president of Texas Industries, will also manage lightweight aggregate operations in Eastland and production of concrete masonry units in Fort Worth under the new organizational structure.

Cook, who joined Texas Industries in 1955 as management coordinator, formerly headed the management services division, Dallas office, of Ernst & Ernst, certified public accountants. Previously he was a home builder and management consultant in San Antonio.

Industr. Building Congress Planned in NYC, Dec. 12-15

A group of 28 of the nation's foremost architects and industrial executives, with responsibilities for top management, construction and plant operation, comprise the board of sponsors for the first Industrial Building Exposition & Congress, which will be held at the New York Coliseum, Dec. 12-15, 1960.

The announcement was made by Clapp & Poliak, Inc., the New York exposition management firm which will produce both events. They will be held annually after 1960.

Executives of International Business Machines, du Pont, Pratt & Whitney, Sears Roebuck, American Telephone & Telegraph, Aluminum Co. of America, U. S. Steel, Ford Motor and Continental Can are among those on the sponsoring board.

The congress will consider such subjects as planning new construction, financing, modernization of older buildings, new types of construction, layout of equipment, construction materials, selection of sites, avoidance of maintenance problems, and the like. Exhibits will be directed to similar themes.

An audience is expected from every country in the world where industrialization is in progress. Although similar events have been held in the home building field, nothing of this nature has ever been scheduled for those interested in industrial building.

Exhibits will fall into eight major categories. These include structural products, such as foundations, walls, floors, windows; mechanical products and systems for operating efficiency, such as conveyors, elevators, waste-disposal systems; electrical, such as power distribution, lighting, process control; heating and air conditioning equipment; employee services, such as cafeterias, washrooms, recreation; plant sites and services offered by states and municipalities, transportation, power, water; financial services of state and municipal organizations, banks and other financing services; and auxiliary services, such as landscaping, parking and the like.

Three co-chairmen head the board of sponsors. They are Albert C. Martin, Jr., Albert C. Martin & Associates, Los Angeles; N. M. Martin, director, facilities planning and construction, International Business Machines Corp., New York, and Clifford S. Strike, president, F. H. McGraw & Co., Inc., New York.

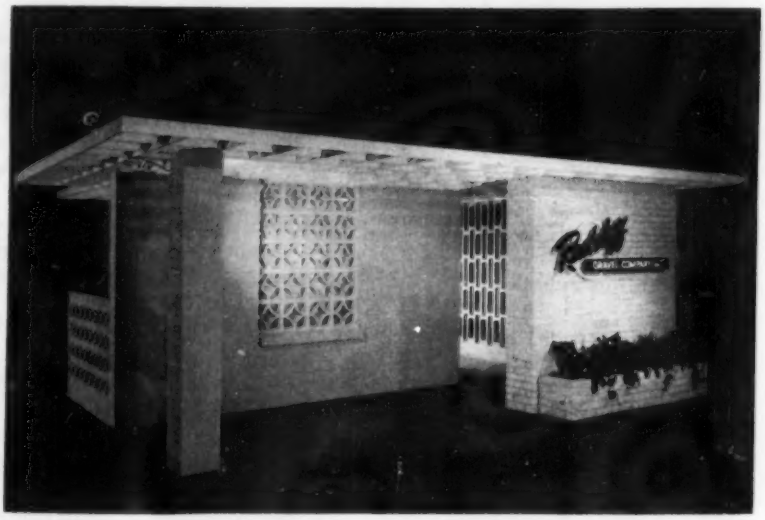
Mass Produced Concrete Sculpture

A new technique for mass producing sculpture in concrete will be used for the exterior design of Chicago's $34 million Exposition Center.

The 50′ walls of the huge lake front center will be highlighted by concrete panels cast by Costantino Nivola. The sculpture and contrasting texture panels, developed by Architect Alfred Shaw, will cover 140,000 sq. ft.

Nivola, an ex-stone mason, is famous for conceiving the technique of sculpting bas relief patterns in damp sand and casting directly in concrete.

Pretty Patterns in Home Show Exhibit



This masonry exhibit used full, half-high, 8x8 and split block to display a variety of patterns at a home show in Mobile, Ala. Radcliffe Gravel Co., Mobile manufacturer of block, built this exhibit for the week-long show.

For the Exposition Center Nivola cast five patterns, forming 50 x 15' concrete duplicating molds.

From the molds large numbers of duplicate bas relief panels will be cast both quickly and economically, Nivola says. All told, 34 panels will be cast for the Center, expected to open in Fall of 1960.

Spickelmier Re-elected, Named Home Show Secty.

Carl F. Spickelmier, president of Spickelmier Industries, Inc., announced recently that new officers were elected at the company's annual board of directors' meeting.

Carl F. Spickelmier was re-elected president and treasurer. Harold R. Carper, former vice president was elected vice president and secretary. Gordon W. Stephens was elected vice president in charge of production; Richard D. Light, vice president in charge of sales; and B. G. Dugan, assistant secretary and assistant treasurer.

Spickelmier Industries, Inc. manufactures concrete masonry products, the Rapidex floor and roof system,

Carl Spickelmier

and Per-Fit aluminum windows. It is also distributor for a line of building materials.

Spickelmier's main office and plant facilities are located at Indianapolis, Ind.

Spickelmier was recently elected secretary of the 1960 Indianapolis Home Show. Spickelmier was a director of the 1959 Home Show and both he and his firm have been active in every home show for the past several decades.

Meekins Makes Driver Skill Awards

Cash awards were presented to winners in Meekins, Inc., Drivers Skills Contest at the Hollywood, Fla. plant. The awards were made at the regular monthly safety meeting in mid-June.

Henry Weedon, local insurance man, here presents an award to Abbie Mier, the driver who scored highest. Others, from l to r, are Jim Coleman, George Brewer, Ken Turnbull, and Paul Bryan.

Dominion Division Plans Haydite Plant

Plans for construction of a modern Haydite lightweight aggregate plant were recently announced by R. G. Rogers, vice-president and general manager, Cooksville-Laprairie Brick Limited of Montreal.

The company, a division of Dominion Tar and Chemical Company Limited, is planning the new facilities adjacent to its brick plant at Delson, Que.

At the same time it was announced that the company intends to add 50 per cent to its productive capacity at the Cooksville, Ont. Haydite plant. The Cooksville expansion will feature a completely new crushing, screening and blending plant to produce various aggregate grades.

Total cost of the Cooksville-Laprairie expansion will be in the region of $1 million, Rogers said. The Cooksville addition is scheduled for completion by December 1959 and Delson in 1960.

These developments follow closely the start of a $4 million expansion of the company's brick manufacturing plants at Laprairie, Que. and at Cooksville.

The new construction, Rogers said, is designed "to meet the rapidly growing demand for lightweight concrete aggregates with high strength characteristics for concrete masonry units and in ready-mix structural concrete."

Maule Adopts New Symbol

Maule Industries, Inc., has adopted a new corporate signature and symbol representative of the company's "new look" program.

maule

F. K. Foster, president of the Florida firm, said, "We have purchased new equipment, we are bringing out new products, and we are establishing new methods, so it is only natural that we should give our name and symbol a new look too."

The symbol will be used on Maule trucks, advertising, letterheads, etc.

News

Material Service Merges With General Dynamics

Henry Crown, board chairman of Chicago's giant Material Service Corp., announced on June 26 that General Dynamics Corp. and Material Service have received approval by both boards to merge the two companies.

The proposed merger provides that General Dynamics' acquisition of Material Service will be financed through an exchange of stock. Shareholders of both companies will be asked to approve the merger at special meetings with the dates to be announced later.

MS Division

Material Service, one of the nation's largest producers of building materials, concrete products, and coal, will become a major division of General Dynamics. Henry Crown, present chairman of the board of Material Service, will continue as chairman of the new division.

According to Frank Pace, Jr., board chairman of Dynamics, the merger of these two organizations, one primarily in defense, the other entirely in commercial business, offers vital advantages of long-term growth and development for both.

Pace said also, "The interest and activities of the Crown family in Material Service Corporation will be maintained. The policies and programs relating to personnel and the conduct of the business, which have contributed so much to its success and growth, will be continued."

Pace pointed out that Dynamics is engaged in a long-term program to supplement its defense business with expanding commercial businesses. The corporation's ultimate objective is to achieve an approximate balance of defense and commercial earnings. The merger with Material Service represents a long step in that direction, he said.

Dynamics expects to achieve this balanced ratio through development of commercial products and services stemming from present activities and from the merger into Dynamics of companies which, like Material Service, are substantial profit-makers in industries traditionally contributing to the nation's commercial growth. Such mergers will couple civilian businesses of high earning capacity and demonstrated growth potential with the corporation's present expanding defense business.

Material Service Corporation was started in 1919 by Henry, Irving and the late S. R. Crown. In its first year sales were $218,000, with net earnings of $3,000. In 1958, net sales were $114,396,000. Net income for the period (excluding non-recurring income) was $10,597,000. Since 1948, sales and earnings have increased more than three hundred per cent.

Henry Crown, chairman of the board of Material Service, has said that his company would continue to follow the same policies which have boosted it in forty years from Chicago's eightieth largest building materials firm to the unchallenged leader in its field.

"If the merger with General Dynamics Corporation is approved by stockholders, the chief effect upon the operations of Material Service Corporation will be simply to make them bigger and better," Crown said.

"The merger plan calls for us to become an independent, autonomous, division or subsidiary of General Dynamics. We will continue to have our headquarters in Chicago. Our employees will continue with their same jobs and privileges. I will remain chairman of the board.

"Frank Nugent will remain president of our Freeman Coal Mining Corporation, and Lester Crown will continue as president of our Marblehead Lime Company.

"We plan to give our customers the same sort of personal service as before — plus the new advantage of affiliation with a highly diversified company which has tremendous resources of both plant equipment and engineering skills.

"This marks the start of a new era in which Material Service Corporation will be able to provide faster, better and more economical service than ever before. Our prime interest has been our customers and the people in our organization — and we believe that the merger will benefit both."

On the terms of the merger Crown said, "While the boards of directors of both corporations have approved a plan, the details have not yet been put into writing for submission to the stockholders. Therefore, I can add nothing at this time to the joint statement of the two corporations."

Atlanta Contractors Group Formed

Atlanta has formed a chapter of NCCA at a meeting held June 20. A central office, with Ernest H. Stanford as executive secretary, has been set-up at 1632 Candler Bldg. in Atlanta.

Elected president of the group was Charles M. Bettis of C & W Concrete Contractors, Decatur, Ga.

"Portable" Prestress Bank Vault

This 32 ton "portable" bank vault here is moving on a 100 mile trip to Sacramento, Calif. for installation in a Bank of America branch.

The 9 x 9 x 12′ prestressed concrete and steel vault was built for use in expanded bank facilities, but till these are ready the vault will be installed in temporary facilities.

The vault was manufactured at Petaluma, Calif., by Ben C. Gerwick of San Francisco.

Florida C&PA Elects Egelhoff

New officers are Robert Egelhoff of Concrete Supply Co. of Pensacola, president; Gary Marable, Ready Mixed Concrete Co. of Ft. Lauderdale, 1st VP; C. W. Zimmerman of Cement Products & Supply Co. of Lakeland, 2nd VP; and Leonard Hinds Jr., Monnah Park Block Co., Miami, secretary-treasurer.

Legislation, promotion and the labor program were among the primary topics covered at the 5th annual convention of the Florida Concrete & Products Assoc., Inc.

With attendance of more than 200 men and women, the meeting was held at the Key Biscayne Hotel in Miami, June 14-16.

A highlight of the meeting was the Founders Luncheon. At this lunch, Ernest S. Killgore was honored as the retiring president and presented with a bronze plaque.

Following this, 18 handsome plaques were given to the original founders of the association. These men were W. D. Gilliz, George Goetz, Hugo Quillian, Charles Denny, C. I. Needham, T. W. Clarkson, Allen Gay, Tom Kearns, Robert Egelhoff, Marion King (deceased, with his wife accepting the plaque) and Cliff Anderson.

Louis Schilling and M. E. Rinker also received founders plaques.

Bill Hikclin Jr., Neil Jones, Ernest Killgore and Frank Williamson were also founders but had received recognition on their president's plaques.

Speakers at the meeting included Arthur Motley, president of Parade Publications. Motley urged business men to get active in politics, not just by contributing funds but by backing proper men for election.

Another speaker, George Wilkinson of Howe Scale Co., gave an interesting talk on the need for keeping scales in good repair constantly.

T. Gardner of Hardy Scales Co., Gar Kachel of Ramsey Engineering Co., O. A. Robin of Hardy and Scott Linder of Linder Industrial Co. gave talks on their company's equipment.

Stanton Walker reviewed research work being done by NRMCA; safety was discussed by Ken Turnbull and John Brewer with a slide presentation illustrating safety efforts by Meekins; Dr. Mortimer Fienberg, an industrial psychologist, spoke before the management workshop on "How To Get Things Done Through Other People."

A complete study was made of the Association work in fields of labor and management, promotion, the Concrete Products Manual, technical and education programs.

Elected president at the meeting was Robert Egelhoff, with Gary Marable as 1st vice president; C. W. Zimmerman as 2nd VP, and Leonard Hinds, Jr. as secretary-treasurer.

Calendar . . .

AUGUST 10-12, 1959	National Cinder Concrete Products Association — Conference of Lightweight Concrete Block Manufacturers — Chalfonte-Haddon Hall Hotel, Atlantic City, New Jersey.
SEPTEMBER 10-12, 1959	Empire State Sand, Gravel & Ready Mix Assoc. — Fall Conference — Otesaga Hotel, Cooperstown, N.Y.
OCTOBER 1-2 1959	Wire Reinforcement Institute — Fall meeting — Queen Elizabeth Hotel, Montreal, Que., Canada.
OCTOBER 4-6 1959	Texas Concrete Masonry Assoc. — Fall semi-annual meeting — Western Hills Inn, Euless, Tex.
NOVEMBER 1-7, 1959	Prestressed Concrete Institute — 5th Annual Convention — Deauville Hotel, Miami Beach, Fla.
NOVEMBER 3-5, 1959	American Concrete Institute — 12th Regional Meeting — Mexico City, Mex.
DECEMBER 6-7, 1959	South Carolina Concrete Masonry Association — Annual Convention — Columbia Hotel, Columbia, S. C.
JANUARY 13-14, 1960	Wisconsin Concrete Products Assoc. — 40th annual convention — Plankinton Hotel, Milwaukee, Wis.
FEBRUARY 15-18, 1960	National Sand & Gravel Assoc. and National Ready Mixed Concrete Assoc. — Combined Biennial Show — The Coliseum and Conrad Hilton Hotel — Chicago, Ill.
FEBRUARY 22-24, 1960	National Concrete Masonry Association — 40th Annual Meeting — Hotel Statler, Los Angeles, Calif.

ECSA New York Meeting studies new uses and markets for product . . .

Greater Use of LW Aggregate Predicted for Concrete

The Expanded Clay and Shale Association, meeting in New York City for its mid-year convention June 18 and 19, heard optimistic reports on the outlook for expanded clay and shale lightweight aggregates. The consensus of feeling was that the market for lightweight aggregate will continue strong in the masonry unit field, while growing considerably in other areas such as structural, precast and prestressed concrete.

At a series of open forum discussions led by B. K. Powers, chairman of the association's technical problems committee and vice-president of Virginia Lightweight Aggregate Corp. (Weblite), it was pointed out that the future potential for lightweight aggregate in structural concrete is very large, but the accent must be on service at the actual job site.

"Architects and structural engineers have come to recognize the savings that are possible because lightweight concrete means less dead load with resultant economies in steel, but they expect and should have the fullest cooperation of the producer and the contractor in field work," Powers commented.

New Uses

R. G. Hardy, president of the Association and general manager of Onondaga Brick Corp. in Warners, N.Y., led the forum into a discussion of new uses of lightweight aggregate. It was brought out that LW aggregate is finding favor as a material for septic tank drainage. Florists are using LW aggregate as a mulching agent.

Many local telephone companies are now making underground conduits of LW aggregate concrete because they find the size of underground sections can be increased by at least half. Power line transmission poles of LW concrete are also being seen in increasing numbers, notably in Florida. Running tracks, both for humans and horses, are utilizing LW aggregate as a base material.

Another promising use of LW aggregate is in floors of factories where the temperature of the floors has been determined to be a definite factor in reducing worker fatigue. Loose coarse aggregate, poured into cores of block walls, is being used as fill where a little more insulation is wanted than ordinary walls provide.

Cold storage plants — again because of LW aggregate's insulation value — are specifying the product, especially among fruit growers in Virginia and elsewhere. Still another growing market is being found in precast stepping stones which are increasing in size to as much as three feet square, where one workman can still handle a step. Less cracking and more even texture of the stepping units has been reported, and with the increased use of color, better results have been obtained.

Insulation of poultry houses where no heat is put into the houses is yet another expanding market, the ECSA meeting was told. LW concrete blocks are preferred for many farm structures, in fact, where a high degree of insulation is required for maintenance reasons.

Firm Market

The forum concluded that the future market for LW aggregate in the block industry will remain firm, while growing in other fields. It was generally agreed that the block industry in a few short years has "come out of the cellar" and has made remarkable advances to higher standards of construction because of new and versatile shapes, colors and glazing effects.

T. R. Berger, executive secretary, presented a report on activities of the Association covering the six month period since the annual meeting in Cleveland last January. L. E. Pfeiffenberger, technical director, gave a comprehensive review of the association-sponsored test and research program which has been going on since 1957.

Roanoke, Va., was selected as the locale of the Association's annual meeting January 28 and 29, 1960. Hotel Roanoke will be convention headquarters with Virginia Lightweight Aggregate Corp. as host firm.

T-11

BIG BUSINESS

Ready-Made Markets Await Local Manufacturers of Concrete Drain Tile

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This unretouched photograph shows representative examples of drain tile. Clay tile is at left; concrete tile at right. Note the roundness, cleanness and ribbed heft of the concrete tile. Also note the absence of distortion and shaling.

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Editorial

NRMCA Survey Gives Valuable Picture of RM Industry

Again this year, as we have since the first one, we are devoting a considerable amount of space in this issue to report the results of the National Ready Mixed Concrete Association's eighth annual survey of the production and value of ready mixed concrete.

We have a twofold purpose in doing this. First, because this annual survey provides information that is essential to an adequate understanding of the part the industry plays in the total construction picture and in the economy as a whole and enables each producer to identify himself within his industry.

Second, because we want to encourage greater numbers of producers to cooperate with the association by supplying their figures annually.

Reports Handled Confidentially

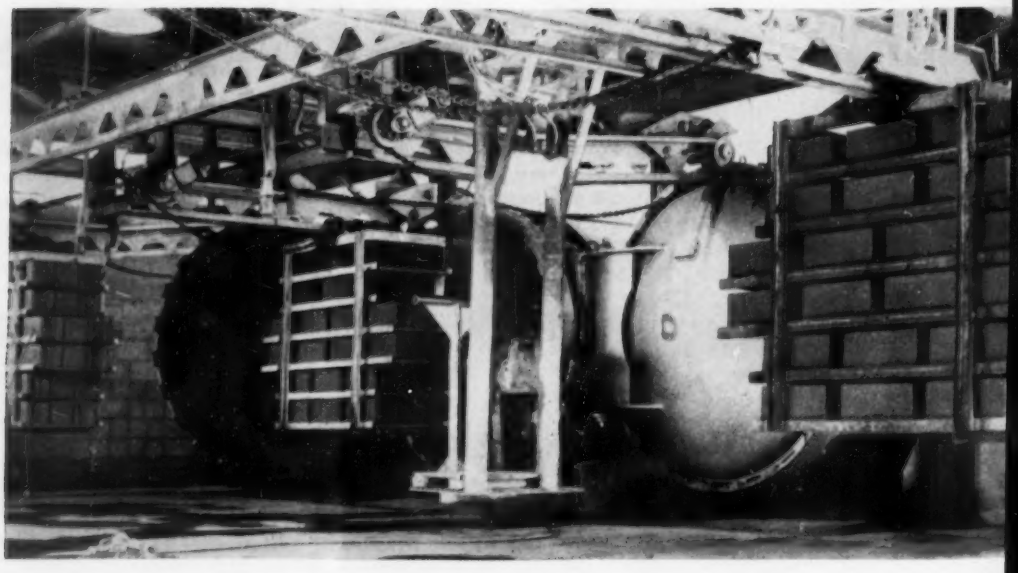
NRMCA has consistently honored its pledge to member and nonmember producers alike of confidential handling of returns so that no company's individual figures will ever be discernible in the report. On that score, no producer need ever hesitate to provide information about his operations.

Significantly, in the 1958 report although a thousand more companies were surveyed than for the 1957 report, the percentage of returns held close to the average of earlier years.

Carefully Study Results

We urge every ready mixed concrete producer to study the results of the 1958 survey in this issue and particularly do we urge those producers who did not participate for 1958 to resolve now that they will respond to the association's invitation to be issued early next year to provide for the 1959 survey.

Plant manager Bill Hueston at control of crane which moves block from line into autoclaves at Concrete Building Units; below is an overall view showing block going into one of the three autoclaves.



A monorail moves block automatically from machine to autoclaves to unloading in a continuous flow . . .

Costs Cut, Output Increased by Automation at CBU Plant

Operating costs cut forty per cent.

Production increased four thousand block per day.

These are only two of the advantages which Jack Lacy, president of Concrete Building Units of Richmond, Va., has realized through automation of his block plant.

Using a single five-cycle Bergen and three autoclaves measuring six feet, six inches in diameter by ninety feet long, Concrete Units molds and cures 20,000 block per day with three staggered shifts.

Figures like these led Kepler Brown, design engineer for Building Units, to say, "Changing over to single stage curing without automating your plant means spending so much more in larger claves and higher operating costs that you actually pay for automation and don't get it."

Continuous Flow Is Key

Continuous flow is the key note in the automation system at Building Units, and it is the use of monorails which makes this flow possible. Block are automatically loaded, given two hours pre-set time en route to the claves, cured and unloaded without the racks once leaving these monorails. Lift trucks are consigned to stacking cubes in the yard.

In other automation systems, the block is loaded onto racks automatically, but it must then be stacked by a lift truck for pre-setting. Later each rack is again picked up by a lift truck, loaded into the clave for curing and eight hours later removed and returned for automatic unloading.

This means that automation is essentially interrupted for the curing cycle, then resumed again when the racks of block are returned from the autoclaves.

Designed Own Machinery

Lacy pointed out that at Building Units the entire molding-curing cycle is integrated into a single continuous whole. "To my knowledge we are the only fully automated plant in the United States," he said proudly. "We had to design our own machinery to achieve it; what we needed wasn't on the market."

This unique automation system grew out of efforts to achieve the maximum efficiency from autoclaves. It has evolved over a three year period in which the new machinery was designed, built and installed without reducing scheduled production — a major feat in itself.

Planning began two years before that when the decision was made to change from a double-stage curing process, which Building Units had been using since 1949, to single stage high pressure curing.

Being no less cost conscious than are most presidents, Lacy began figuring how to reduce the number and size of the autoclaves necessary to cure the block that the plant was capable of producing. Maximum efficiency from the

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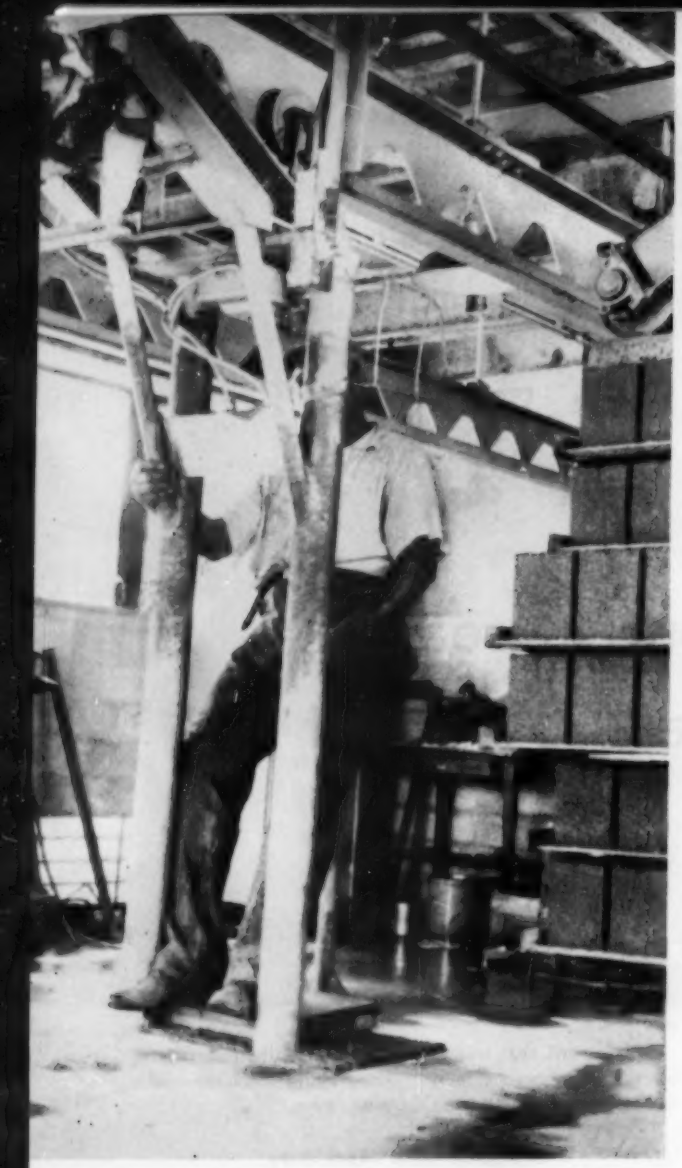


Automation At CBU

Continued

claves meant maximum utilization of space within each unit and a minimal expenditure of time loading and unloading them.

Doubled Load in Autoclaves

In the resulting system as it exists today, Building Units' claves can be loaded to almost twice the capacity that J. B. Maher of the Chicago Bridge and Iron Co. calculates possible for this size autoclave loaded in the conventional manner. In addition, clave unloading and loading time — from the moment the door swings open at the end of the curing cycle until it closes on a new load of green block — has been cut to fifty minutes.

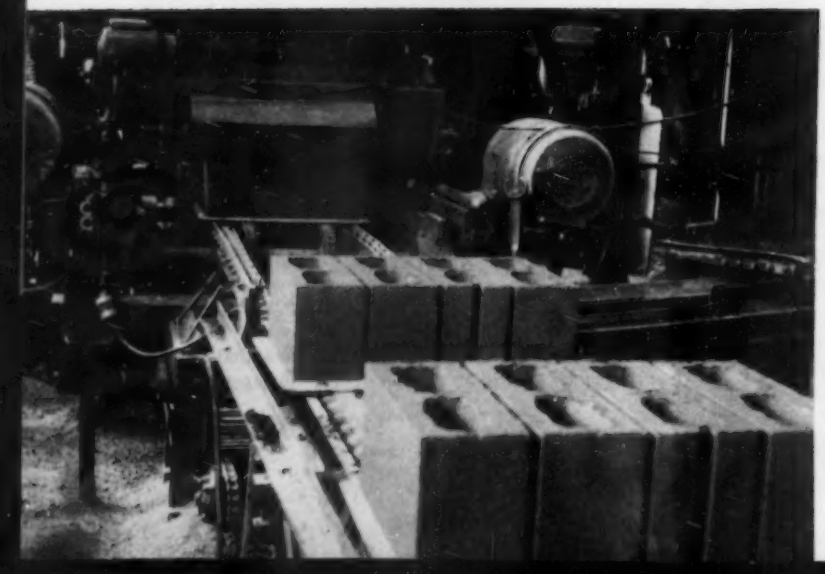
This greatly increased capacity is the result of three factors. Because the racks are carried into the clave on monorails, they could be designed to exactly fit the interior. Further, the automatic loading of the racks results in a more compact load that saves inches in overall rack size.

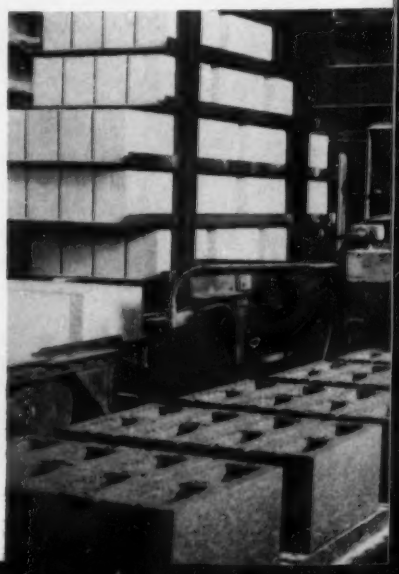
Maher, figuring the usual clearance, estimated forty-eight block per rack for a seven foot diameter clave. Through the use of automatic machinery, Building Units achieves sixty with a six inch smaller diameter.

Unusual Rack Design

Rack design also includes off-setting the support bars so as to permit nesting of the racks within the clave. There is no clearance whatever between the racks themselves as they are loaded, and only inches between the block on one rack and those on the next.

Above is crane and operator; below left newly formed block go on belt to move into unloader; at center, block in center background are ready to move to autoclaves.





The role of automation in decreasing time required to unload and reload an autoclave is fairly obvious. No time is consumed picking up and transporting block to the clave or from it. Racks can be loaded and unloaded four at a time in a continuous cycle, and there is no need to wait for the clave to cool because no one needs to enter it.

Increased clave capacity means more block cured per cycle, decreased time spent loading and unloading means more cycles per day. Together they mean that half as many claves do twice the work.

This explains what Brown meant by saying that to install high pressure curing equipment without automating is to pay for automation and not get it. The cost of claves plus the automatic equipment would run no more than the equivalent curing capacity in autoclaves alone.

Two years of planning had these facts on paper, but converting them into the reality of production figures was still three years off when actual work on the new system began in the winter of 1956.

Kepler Brown, formerly an engineer for the Bergen Machine and Tool Co., who had been called in as a consultant, was so sold on the possibilities of the envisioned automation system that he came to work for Building Units developing the machinery needed to make the dream a functioning reality.

Had To Maintain Production

The problem was to maintain production while installing and testing the new machinery. "It was like having the plumbers in the bathroom while you're trying to bathe and shave," Lacy said smiling. Today the only remaining signs of the struggle are the canvas draped fronts of four steamrooms chopped off to make room for the monorails.

The plant has been in production under the new system for four months now. Plans call for a stripper and cuber to be installed within a year. At present the block are cubed by hand as the pallets pass from the unloader to the block machine. Automatic batching and mixing will follow these.

A quick tour of the plant will give us a glance at automation in action. The plant itself stretches lengthwise behind the single story office building. Walking around the corner of the offices, we pass the back ends of the three autoclaves on our right and enter the plant from the side.

Monorail Movement

Two monorails running parallel the length of the plant first strike our attention as we come in. In fact the rows of racks moving along them prevent our seeing anything else.

Immediately before us is the green block line and ducking under the slowly moving racks we face a second line transporting cured block in the opposite direction.

These are the two main rails, 120 feet long, connecting the block machine at one end of the plant with the autoclave openings at the other. Standing between the two lines we begin to appreciate what continuous flow means as the racks move steadily past us, green block on one side, cured block on the other.

At each end of the plant, these two main rails are connected by bridge cranes. A smaller automatic crane beyond the block machine transfers racks to the green block line as they come from the loader.

At the other end, a larger crane carries them to monorails leading into the autoclaves and transfers racks coming from the claves back to the cured block line.

Both cranes are actually segments of the monorail itself. Operated by electric motors, they move back and

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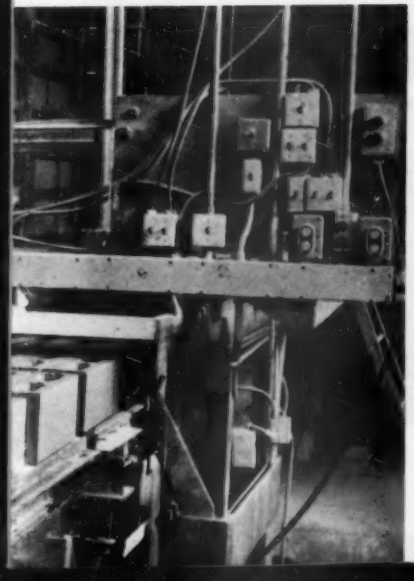
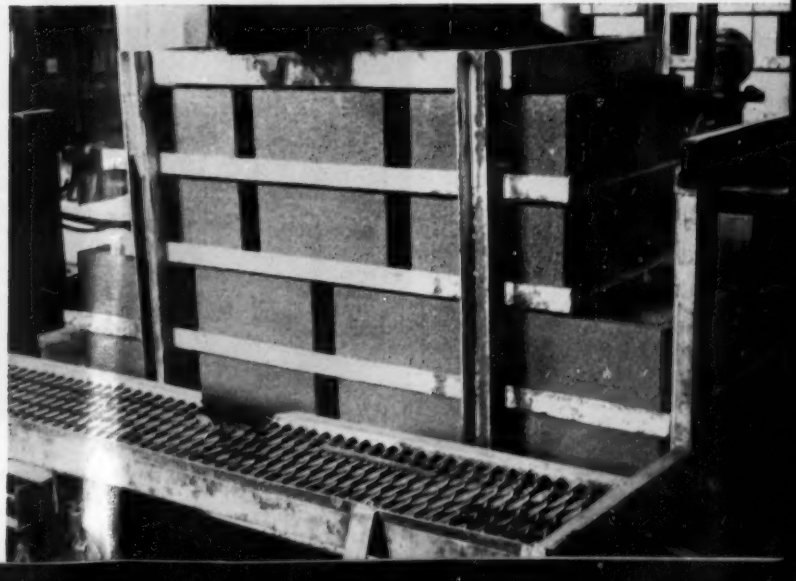


Below is the loader where block move off first conveyor to go to autoclaves.



Automation By Monorail At CBU

Continued From Previous Page

forth connecting the open ends of two main rails and the three shorter rails leading into the autoclaves.

Following the cured block line, we see where it actually merges with the unloader. In loading and unloading the pallets, it is the rack and not the pallet which is manipulated. The racks are lowered and raised by a hoist which, as in the case of the cranes, is an integral part of the monorail system.

Rack Movement

Loading, pre-setting, curing, transporting and unloading are all organized into the movement of racks on the monorail system. And now we see the flow of pallets from the block machine, one every twelve seconds, moving through the loader to mesh with the flow of racks through the plant. Together they merge into a single pattern of continuous production.

Key pieces of machinery, on which Building Units has patents pending, are the automatic loader, the two cranes and the unloader. To get a better picture of how they fit into the system, we can follow a pallet of block from the time it leaves the block machine until it is unloaded from its rack.

As it comes from the pallet conveyor, belt driven rollers move the pallet approximately 16' onto an empty rack which has been lowered until its top shelf is on level with the rollers.

The first pallet deposited is pushed further into the rack by the following pallets until the shelf is filled. The hoist, operated by two cables and controlled by trip switches, then raises the rack until the next shelf is on level with the rollers, and the process continues until the rack has been loaded. It is then replaced by an empty rack from the unloader and moves to the end of the rail.

Here, the final segment of the monorail, a short bridge crane which rides on cross beams between the two lines, automatically transports the freshly loaded rack to the green block line and returns to await another.

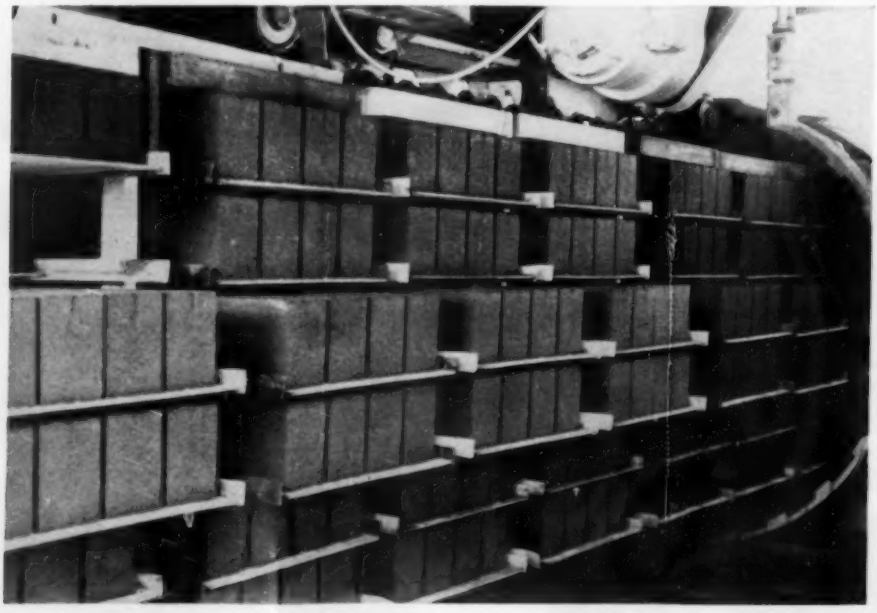
Automatic Cut-Off Switches

The rack is moved on the green block line by four successive chains of varying lengths so coordinated by automatic cut-off switches in the final section that four racks arrive at the end of the rail nested into a single unit.

This entire unit then moves onto the crane which is operated by one man manipulating four buttons and a lever. This larger bridge crane, driven by two 5 hp electric motors, moves on cross beams to connect the two main monorails with the three autoclave rails.

The operator aligns the crane with one of the autoclave rails and the four racks are drawn onto it. A short chain takes over to move them into the clave itself.

The crane returns to pick up the next four racks which have then reached the end of the line. This unit of four



Closeup of new block moving into autoclaves.

racks is transferred to the autoclave rail and moves in pushing the preceding racks before it, thus insuring the most compact fit possible.

The curing cycle within the clave is regulated automatically by a Minneapolis-Honeywell pressure control panel.

Unloading the clave reverses the loading pattern. The crane picks up four racks at a time as they are pulled from the clave and transfers them to the cured block line.

This line, like the one for green block, is controlled by cut-off switches. When a rack reaches the unloader, it trips a switch that halts the final section of the line only, so that the remainder of the racks continue to be moved in.

Rack Unloading

When an empty rack moves from the loader to the unloader, it trips another switch; the rack of cured block then moves onto the hoist and is lowered over a table of powered rollers that slide the pallets from the bottom shelf. The rack then drops on down over the rollers, which fit through the pallet supports, until they contact the pallets resting on the next shelf and the process continues until the rack has been emptied.

The empty rack is raised, replaced by a full one, then moves on to be reloaded and begin another cycle.

The single largest cut in operational costs realized by this automation system results from the greater number of block cured per cycle. Since the same amount of steam does twice the work as in a conventional high-pressure setup, fuel costs are cut appreciably. After four months' operation, savings are estimated at approximately three dollars per thousand block cured.

Fuel savings also result from the shortened loading time. The interior of the autoclaves do not have time to cool to atmospheric temperature and less fuel is consumed building the pressure back up on a new load.

Lowered Costs

The use of monorails, besides making the increased capacity of the claves possible, lowers operating costs directly in three major ways. They eliminate the use of lift trucks in the plant. Smoother transportation of the block cuts breakage in handling. Less horse power is required to move the racks, and bearing service is practically eliminated.

After functioning for three years as a pilot plant for the development and testing of new machinery, Building Units hopes to bring its improvements on the market within another year. The company intends to market their automatic system on a nation-wide basis.

Upon request, package plans designed to meet the individual requirements of different plants will be drawn up and manufacture of the necessary machinery will be arranged by Building Units.

A final advantage inherent in the move to automation looks to the future. Production is no longer limited by the human element or curing time. The rate of production can be raised through use of a higher-cycle molder in the full confidence that block can be handled and cured as fast as they are turned out.

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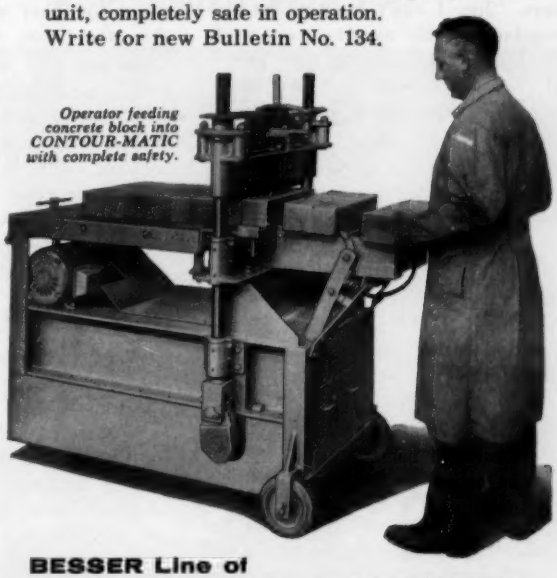

Operator feeding concrete block into CONTOUR-MATIC with complete safety.

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CM-24" Power Model Splitter... CM-16" Power Model Splitter... CM-16" Hand-operated Splitter... CM-12" Hand-operated Trimmer . . . CM-9" Hand-operated Trimmer . . . SB-9" Hand-operated Trimmer . . . Pony Junior Trimmer.

BESSER COMPANY
Alpena, Michigan, U. S. A.

A plant dispatcher, in charge of his company's meetings, gives practical pointers on - -

How To Hold A Plant Safety Meeting

by

Joe Christini

Ready Mixed Concrete Inc.

Mansfield, Ohio

All of you fellows who put on meetings—I'm giving you a new title, "Meeting Manager." Maybe you never thought of yourself as a meeting manager. But let's say you are the one in the office to whom the boss says, "Joe, I can't be here for the regular monthly meeting next week so I'm asking you to take over." O. K., who's managing that meeting? You are, aren't you?

Since all of us show by our actions that we like to go to meetings, there are a lot of meeting managers just like you who must put their shows on the stage. It's not hard, really, and it's a lot of fun. Only it takes careful planning and attention to every little detail.

A successful company meeting is no accident — believe me. If these suggestions, thoughts and ideas are helpful — swell. If you find one or two which seem to fit your group, try it. If it works, great. If it doesn't work, mark yourself "A" for effort. But don't discourage easily; try another and another. In no time at all you'll learn to select the ones made to measure for your group. The boys will like your meetings and you'll get a reputation as a Meeting Manager who knows his stuff.

Presented at the Public Relations and Safety Course for Drivers, in January, 1959; sponsored by the Ohio Ready Mixed Concrete Assoc.

There's no thrill like the one you feel when, after the meeting, one of the boys comes up and says, "Joe, you put on a good show."

Now if your company was like mine when I first took over this job, your employees are a pain in the neck. They won't read the notices. They won't arrive on time. They won't take the front seats. They won't ask questions. They will shut the windows when you need air. Or they will open them when a fire truck is going by. They will complain about this, about that, about everything.

To run a meeting well, you must love your fellow man; because you meet so many who are difficult to love. But since you are running the meeting, you are perhaps smarter than those employees who won't do this and that. And if you get just one good idea from their remarks, it might help to make your job a little easier.

Good Results

I won't go into the obvious reasons why our company holds a safety meeting each month. I will simply tell you how we do it up in Mansfield, and have been doing it every month for as far back as I can remember. And we know, from the results, that we are getting what we want.

My boss believes, and I agree, that good communication between management and employees is a MUST — perhaps the most important function that we all have to deal with. I will say — and I sincerely believe — that we have today the finest bunch of truck drivers our company has ever had.

We get many compliments from our customers who say that all of our drivers are courteous, clean, well-dressed, well-mannered and try to do everything they can, within reason of course, to be helpful on the job.

Now, these things just don't happen overnight. They are the result of a carefully planned and continuing program of education and training. And the whole program originates and is built around the company safety meeting.

Driver Training

Of course, we begin when we first hire a new driver. We try to select carefully each new applicant for a job. We ask each one to fill out a job application form. On this form he must indicate his education, background, marital status, service record, etc. But he must also give us references— where he worked before and for whom.

Then we fill out another form called a "Telephone Check" which is simply asking questions of his former employers as to his record, especially his accident record. Then if we are satisfied that he looks good, we put him through other tests.

Driver Interview

Next is a careful Driver Interview consisting of approximately 45 verbal questions, and, believe it or not, here is question No. 12: "Have you ever spent the night in jail?" Question No. 18 reads: "How many beers can you drink before you feel them?"

Sounds a little silly, doesn't it? But you'd be surprised how much the answers tell us about a man's character. And his attitude. We think the latter is extremely important.

The next test is a Standardized Test of Traffic & Driving Knowledge and consists of 57 multiple choice questions. The final test is called Road Test in Traffic. This consists of check list and score sheet in 2 parts. The driver is accompanied by myself or an assistant who charts and grades him over 100 different operations under actual driving conditions. If he successfully passes these three tests we consider him to be potentially a good driver for a mixer truck and he is put on the payroll.

Organizing Meeting

Now getting to the company meeting. The first step is to organize. We at Ready Mixed Concrete have agreed on the first Wednesday night of every month. The boys themselves chose this particular time. It seemed like the best time for everybody.

Attendance is good because they know they can plan ahead each month. The surprising thing to those of us in the office is that, with very few exceptions, our attendance is 100% of all employees. Very good, you say. And we agree, especially since no one gets paid. But we like to think that we make our meetings so interesting that the boys want to come and actually look forward to it. Of course, once in awhile the boss has to hire a baby sitter so that a driver can attend. But that's all in the game and we are glad to do it.

Reminders And Checking

A week before the meeting I put a reminder notice on the blackboard in the drivers' ready room near the time clock. At the same time I make a list of all employees on a yellow pad and during the day I ask each one to sign opposite his name if he will be present.

If, as happens once in a while, a driver will say, "No, I can't come," either the boss or I go to him and find out why. Then we do a little persuading. Explain why it is important to have everyone there. That we can't put on a meeting unless all employees are present. Then, 99 times out of 100, he sees the light and finally says, "Sure, I'll be there if the old lady will let me out that night." It nearly always works.

Sometimes they really do have a problem about getting out to come to the meeting. And if the company can help—we try. Like the baby sitter deal.

Meeting Room

Be sure to have a large — but not too large — room with plenty of comfortable chairs. But not *too* comfortable. We always remove the padded easy chairs, if any; get them out of the way. I always check our meeting room late in the afternoon before I go home. Make sure the floor is swept, have plenty of clean ashtrays. Then arrange the chairs — we use steel folding chairs which we buy here in Columbus for less than $5.00 apiece — all facing the front of the room.

If you are going to show movies — and we do at nearly every meeting — set up the screen and projector as early as possible, all ready for the show to begin. Install the film, thread it ready to go and, if time permits, run it a minute or two to check. Is it in focus? Is the sound O. K.? Is the screen high enough so that everyone in the room can see?

It's a good idea to station one of the boys near the light switch so that at a given signal he can turn off the lights Never — no never — try to do all this during a meeting. There is nothing which distracts a speaker more. If you can't do all this before the meeting, then call for a 5 minute recess while the operator gets ready.

Showing Films

Many good films on all sorts of subjects are available for showing free. From "Quality Concrete" to "Care and Operation of Equipment."

Continued on page 44

For Safety's Sake — Boy Meets Ghoul

To serve as a steady reminder of the need for safety, here's a combination reminder used by Fischer Lime & Cement Co. of Memphis. Charlie Accident, a ghost dummy who's heavily bandaged, stands near the time clock where all employees check in or out.

As a further reminder, the company uses the sign board to show the number of days worked without accident.

NRMCA's annual statistics on . . .

Ready Mix Production For 1958

By

Kenneth A. Tobin

Assoc. Exec. Secty.

NRMCA

The National Ready Mixed Concrete Association has completed its eighth annual survey of the production and value of ready mixed concrete. This survey is designed to fill the need for a reliable measurement of the contribution the ready mixed concrete industry makes each year to the national economy.

51% Covered

Questionnaires were sent to the 3,481 ready mixed concrete companies in the United States of whom we have record. Returns were received from 1,647 companies. In addition to the returns received from 1,647 companies, limited data were also available on 145 member companies which did not return the questionnaire. These statistics have been incorporated in the study where ever possible, making a total participation of 1,792 companies, or 51 per cent of the companies surveyed.

The reporting companies produced a substantial majority of the total ready mixed concrete production in 1958, amounting, in our opinion, at least to 80 per cent of the total production.

Attached are nine tables which reflect the results of our survey. *Table* 1 shows the reporting companies produced 81,293,451 cubic yards, valued at $1,114,355,650, with an average value of $13.71 per cubic yard. The results of our 1955, 1956, and 1957 surveys are also included in Table 1.

Exact comparisons cannot be made, however, because of the substantial increase over previous years in the number of companies surveyed and the number of companies reporting.

Production Drop

The average production per company and the median production per company declined substantially in 1958 when compared with 1957 and 1956.

Average production per company in 1958 was 45,365 cubic yards, a decline of 9,195 cubic yards per company from the 1957 average of 54,560 cubic yards per company, or 17 per cent. It represents a decline of 13,305 cubic yards, or 23 per cent, from the all-time high average of 58,670 cubic yards per company in 1956.

Similarly, median production declined to 23,427 cubic yards in 1958

Table 1

Ready Mixed Concrete in 1955, 1956, 1957, 1958

	1955	1956	1957	1958
Companies surveyed	2,308	2,314	2,474	3,481
Companies reporting	1,344	1,247	1,312	1,792
Production (cu. yds.)	69,764,099	73,161,996	71,582,473	81,293,451
Total value	$871,353,597	$962,626,686	$961,096,209	$1,114,355,650
Average value (per cu. yd.)	$12.49	$13.16	$13.43	$13.71
Portland cement consumed (bbls.)	92,800,000	97,300,000	95,200,000	108,000,000
Sand and coarse aggregate consumed (tons)	112,000,000	117,000,000	114,500,000	131,000,000
Average production	51,908	58,670	54,560	45,365
Median production	27,396	29,253	28,436	23,427

1958 total includes 145 member companies not actually replying to the questionnaire but whose production of 9,144,916 cubic yards was otherwise available.

1958 totals of portland cement, sand and coarse aggregate consumed are Association estimates based on actual reported production of 81,293,451 cubic yards of concrete. The estimates assume a cement consumption of 1.33 barrels per cubic yard of concrete and a sand and coarse aggregate consumption of 1.6 tons per cubic yard of concrete.

The average production was determined by dividing the total production by the number of reporting companies; the median production is that of the "middle" company — i.e. in this sample of 1,792 companies, the 896th company from the top.

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Continued

from 28,436 cubic yards in 1957 and 29,253 cubic yards in 1956. The substantial increase in the number of companies participating in the survey, involving the addition of many smaller producers, undoubtedly accounts for a portion of the decline reported in average production per company and median production.

Based on the reported production of 81,293,451 cubic yards of concrete, we estimate that the reporting ready mixed concrete producers used approximately 108-million barrels of portland cement and 131-million tons of sand and coarse aggregate.

This estimate is based on the assumption of an average cement consumption of 1.33 barrels per cubic yard of concrete and sand and coarse aggregate consumption of 1.6 tons per cubic yard of concrete.

California Leads

Table 2 presents production and value data on a state basis. California led all states with a reported production of 10,366,259 cubic yards, valued at $125,012,573. Ohio took second place, reporting a production of 5,105,078 cubic yards, valued at $72,651,940.

New York ranked third with a reported production of 4,382,350 cubic yards, valued at $65,914,754. Ohio led all states in total number of companies reporting with 115; Pennsylvania with 110 and California with 106, followed in that order. The average value per cubic yard ranged from $16.97 in North Dakota, $16.61 in Montana, and $16 in Texas, to $12.06 in California.

It should be noted in connection with *Table* 2 and *Table* 3 that in states and territories where less than 3 companies reported, the data are not separately presented. This is necessary in order to carry out our pledge to reporting companies that no use will be made of the data which might disclose individual company figures.

Table 3 presents consumption data on a state basis. Home building

(*Continued on page* 26)

***Table* 2**

Ready Mixed Concrete Production and Value in 1958, by States

State	No. of Companies	Production (cu. yds.)	Value ($)	Average Value per cu. yd.
Ala.	26	907,858	$ 11,631,316	$12.81
Ariz.	10	1,064,158	13,239,916	12.44
Ark.	13	397,457	4,899,478	12.33
Calif.	106	10,366,259	125,012,573	12.06
Colo.	16	1,201,422	15,107,737	12.57
Conn.	21	848,065	11,594,497	13.67
Del.	3	155,887	2,162,306	13.87
D.C.	5	910,281	13,012,756	14.30
Fla.	53	3,686,940	54,429,165	14.76
Ga.	24	722,220	10,304,854	14.27
Idaho	7	168,023	2,353,989	14.01
Ill.	76	3,232,109	43,808,293	13.55
Ind.	67	1,947,229	24,909,494	12.79
Iowa	87	1,148,979	16,775,171	14.60
Kan.	41	1,261,552	15,323,933	12.15
Ky.	23	595,410	8,760,923	14.71
La.	35	1,480,154	21,441,008	14.49
Maine	6	166,996	2,206,546	13.21
Md.	20	1,300,458	17,939,034	13.79
Mass.	28	1,565,758	21,036,057	13.44
Mich.	111	3,694,074	49,824,121	13.49
Minn.	38	1,113,840	16,297,342	14.63
Miss.	19	455,878	5,930,402	13.01
Mo.	34	2,204,497	28,066,419	12.73
Mont.	16	304,638	5,060,583	16.61
Neb.	29	848,382	11,927,517	14.06
N. H.	9	164,080	2,414,813	14.72
N. J.	22	1,220,782	17,476,130	14.32
N. M.	7	427,968	5,506,727	12.87
N. Y.	57	4,382,350	65,914,754	15.04
N. C.	37	774,143	11,741,394	15.17
N. D.	4	113,645	1,928,655	16.97
Ohio	115	5,105,078	72,651,940	14.23
Okla.	27	727,122	9,448,776	12.99
Ore.	35	712,084	9,792,438	13.75
Pa.	110	3,670,826	53,226,063	14.50
S. C.	9	290,824	4,403,277	15.14
S. D.	7	142,531	2,058,189	14.44
Tenn.	46	1,044,527	14,230,553	13.62
Texas	61	3,279,233	52,479,137	16.00
Utah	13	676,288	8,261,971	12.22
Vt.	3	39,167	533,529	13.62
Va.	31	1,358,958	19,165,784	14.10
Wash.	30	1,024,192	13,897,852	13.57
W. Va.	15	542,787	8,201,320	15.11
Wis.	61	1,672,564	21,270,768	12.72
Other[1]	5	154,932	2,555,767	16.50
Canada	29	2,875,930	38,763,585	13.48
Totals	1,647	72,148,535	$988,978,852	$13.71

[1]*Includes all states and territories where less than three companies reported. (Alaska, Hawaii, Nevada, Rhode Island, and Wyoming.)*

Table 3

Consumption of Ready Mixed Concrete in 1958, by States

State	Total Production (cu. yds.)	Type of Consumer					
		Home-building	Federal Public Works[1]	Non-Federal Public Works[1]	Highway Construction	Industrial Construction	Commercial Construction
Ala.	907,858	300,670	47,368	58,882	63,063	132,124	197,304
Ariz.	1,064,158	640,431	27,210	28,225	68,075	33,207	208,658
Ark.	397,457	182,933	16,701	16,213	36,328	44,521	75,257
Calif.	10,366,259	3,380,004	539,766	755,345	863,101	1,238,016	2,020,407
Colo.	1,201,422	371,357	35,444	53,976	138,544	112,664	225,764
Conn.	848,065	332,453	42,173	54,876	39,618	111,370	94,869
Del.	155,887	2,400	7,100	5,200	60,880	33,019	33,288
D. C.	910,281	144,710	180,178	59,733	97,796	43,020	375,938
Fla.	3,686,940	1,695,983	50,238	125,582	164,244	225,471	429,785
Ga.	722,220	190,544	36,592	38,262	33,260	55,499	196,822
Idaho	168,023	81,026	6,000	14,118	6,189	8,093	20,488
Ill.	3,232,109	1,362,774	55,518	133,817	607,575	359,889	360,164
Ind.	1,947,229	607,915	16,641	106,507	188,924	558,322	267,639
Iowa	1,148,979	282,070	12,256	92,191	143,636	122,893	157,585
Kan.	1,261,552	462,153	47,761	120,929	180,030	158,053	182,213
Ky.	595,410	157,937	10,842	77,147	36,674	79,964	79,016
La.	1,480,154	602,186	88,102	143,774	167,096	137,571	264,345
Maine	166,995	34,918	6,824	11,324	32,824	14,324	24,212
Md.	1,300,458	517,820	71,822	144,273	81,532	289,953	145,852
Mass.	1,565,758	467,016	111,245	182,292	174,318	215,533	201,826
Mich.	3,694,074	1,434,667	118,650	260,757	333,767	390,653	726,327
Minn.	1,113,840	365,807	54,348	97,572	74,919	171,613	247,454
Miss.	455,878	179,314	21,438	36,702	52,440	38,117	82,355
Mo.	2,204,497	977,250	27,836	115,340	145,062	425,762	397,358
Mont.	304,638	106,678	58,531	14,019	15,441	6,900	57,056
Neb.	848,382	106,093	30,200	77,182	262,516	84,579	116,126
N. H.	164,080	39,715	19,960	10,387	35,769	20,409	27,538
N. J.	1,220,782	320,213	99,056	85,931	150,880	255,390	163,926
N. M.	427,968	272,108	20,200	31,490	4,157	19,666	71,859
N. Y.	4,382,350	928,003	344,004	854,922	728,649	542,977	800,540
N. C.	774,143	170,810	43,070	74,422	83,292	145,617	140,022
N. D.	113,645	14,249	2,050	5,100	531	15,371	32,606
Ohio	5,105,078	1,578,739	207,528	407,865	801,606	877,056	775,890
Okla.	727,122	188,900	54,635	29,679	114,398	112,829	192,139
Ore.	712,084	209,585	37,341	49,896	36,311	173,019	165,852
Pa.	3,670,826	762,523	106,123	477,310	720,932	467,170	482,867
S. C.	290,824	35,592	49,000	19,945	78,391	48,125	26,692
S. D.	142,531	24,985	19,538	13,728	26,438	12,337	36,942
Tenn.	1,044,527	355,583	51,070	128,191	89,893	128,580	225,590
Texas	3,279,233	1,246,123	139,559	225,167	313,552	401,260	808,263
Utah	676,288	373,123	12,082	30,088	12,291	83,096	64,821
Vt.	39,167	13,418	8,818	3,759	—	4,325	6,104
Va.	1,358,958	350,037	226,294	98,161	166,314	202,750	233,199
Wash.	1,024,192	300,195	74,222	78,067	102,353	149,427	248,015
W. Va.	542,787	189,593	1,457	25,155	70,662	104,144	68,427
Wis.	1,672,564	585,651	27,242	110,662	292,629	308,265	224,764
Other[2]	154,932	49,461	15,695	18,850	7,022	12,541	48,318
Canada	2,875,930	993,042	244,718	229,709	251,905	364,155	653,911
Totals	72,148,535	23,988,757	3,524,446	5,832,722	8,155,827	9,539,639	12,686,393

(1) Excluding highway construction.

(2) Includes all states and territories where less than three companies reported. (Alaska, Hawaii, Nevada, Rhode Island and Wyoming.)

Farm Construction	Other	Not Specified
13,206	12,008	83,233
37,070	21,282	—
8,910	16,594	—
86,367	162,528	1,320,725
44,751	21,202	197,720
7,518	19,223	145,965
—	—	14,000
7,604	1,302	—
29,166	28,557	937,914
13,977	6,737	150,527
9,705	2,634	19,770
104,763	151,756	95,853
145,068	55,213	1,000
227,294	64,489	46,565
77,339	21,174	11,900
18,560	20,718	114,552
12,507	64,573	—
5,147	8,217	29,206
10,334	12,475	26,397
11,475	87,740	114,313
49,699	252,332	127,222
28,205	35,811	38,111
9,240	33,167	3,105
32,340	83,045	504
11,141	4,347	30,525
133,170	38,516	—
6,500	3,602	200
34,024	48,181	63,181
4,423	4,065	—
62,247	109,621	11,387
23,223	60,762	32,925
3,562	40,176	—
168,921	107,577	179,896
17,227	15,056	2,259
33,001	7,079	—
94,094	259,240	300,567
6,879	11,200	15,000
4,510	2,853	1,200
26,383	24,755	14,482
45,171	77,340	22,798
21,335	79,452	—
1,643	1,100	—
19,269	35,352	27,582
50,850	18,937	2,126
9,259	9,235	64,855
58,390	53,717	11,244
3,045	—	—
5,498	127,692	5,300
1,834,010	2,322,632	4,264,109

Table 4

Ready Mixed Concrete Production by Type of Operation in 1958, by States

State	No. of Companies	No. of Proportioning Plants	Produced by Transit Mixing (cu. yds.)	No. of Central Mixing Plants	Produced by Central Mixing (cu. yds.)
Ala.	26	36	583,645	8	324,213
Ariz.	10	20	874,563	1	189,595
Ark.	13	21	196,668	3	200,789
Calif.	106	270	9,337,809	22	1,028,450
Colo.	16	26	979,386	5	222,036
Conn.	21	25	780,303	2	67,762
Del.	3	2	46,388	3	109,499
D. C.	5	14	910,281	—	—
Fla.	53	97	2,797,103	16	889,837
Ga.	24	33	599,252	4	122,968
Idaho	7	11	168,023	—	—
Ill.	76	98	2,303,704	19	928,405
Ind.	67	68	831,519	32	1,115,710
Iowa	87	102	908,348	17	240,631
Kan.	41	53	1,026,524	7	235,028
Ky.	23	22	353,599	9	241,811
La.	35	43	1,162,176	10	317,978
Maine	6	11	132,679	2	34,317
Md.	20	26	824,797	6	475,661
Mass.	28	47	1,407,099	4	158,659
Mich.	111	130	3,351,188	12	342,886
Minn.	38	46	729,052	11	384,788
Miss.	19	20	245,293	5	210,585
Mo.	34	53	1,638,830	16	565,667
Mont.	16	23	180,634	2	124,004
Neb.	29	36	265,560	12	582,822
N. H.	9	13	164,080	—	—
N. J.	22	47	1,220,782	—	—
N. M.	7	11	302,423	1	125,545
N. Y.	57	122	4,258,093	3	124,257
N. C.	37	50	542,727	7	231,416
N. D.	4	8	99,175	1	14,470
Ohio	115	190	3,709,808	41	1,395,270
Okla.	27	46	683,564	2	43,558
Ore.	35	44	471,762	6	240,322
Pa.	110	151	2,296,346	22	1,374,480
S. C.	9	8	121,058	4	169,766
S D.	7	1	13,516	7	129,015
Tenn.	46	47	624,828	12	419,699
Texas	61	120	2,876,865	11	402,368
Utah	13	22	509,230	2	167,058
Vt.	3	3	39,167	—	—
Va.	31	69	1,049,592	10	309,366
Wash.	30	27	306,469	22	717,723
W. Va.	15	32	542,787	—	—
Wis.	61	70	1,218,654	11	453,910
Other[1]	5	6	132,562	2	22,370
Canada	29	50	1,804,899	17	1,071,031
Totals	1,647	2,470	55,622,810	409	16,525,725

[1]Includes all states and territories where less than three companies reported. (Alaska, Hawaii, Nevada, Rhode Island and Wyoming.)

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continues to be the largest market for ready mixed concrete, accounting for 33 per cent of the total production. The 33 per cent consumed by the home building market represents an increase in the percentage consumption by this largest consumer of 4 per cent over the 29 per cent of total production reported in our 1957 survey.

The other consumption categories retained the same ranking as in 1956 and 1957, with commercial construction in second place, accounting for 18 per cent of the total, the same percentage of the total market as reported in 1957; industrial construction in third place, accounting for 13 per cent of the total, a decline of 3 per cent from the 16 per cent reported in 1957.

Highway construction in fourth place, accounting for 11 per cent of the total, a decrease of 1 per cent from the 12 per cent reported in 1957; non-Federal public works in fifth place, accounting for 8 per cent of the total, the same percentage as in 1957; Federal public works in sixth place, accounting for 5 per cent of the total, the same percentage as in 1957; and farm construction in seventh place, accounting for somewhat less than 3 per cent of the total.

Other uses accounted for slightly more than 3 per cent. Approximately 6 per cent of the reporteed 72,148,535 cubic yards was not specified as to type of consumer.

Table 4 presents a breakdown of the data between production by transit mixing and production by central mixing. These data were presented for the first time in our 1957 survey. The survey reveals that 77 per cent of the total yardage reported was produced by transit mixing, an increase of 3 per cent from the 74 per cent produced by transit mixing reported in our 1957 survey.

California, New York, Ohio and Michigan, in that order, produced the greatest amount of transit mixed concrete.

Ohio, Pennsylvania, Indiana, and California, in that order, produced the greatest amount of concrete by central mixing. The 1,647 companies

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Table 5

Distribution of 1958 Ready Mixed Concrete Production by Size of Company

1958 Production (cu. yds.)	No. of Companies	Cubic Yards Produced	Percent of Reported Production	Percent of Participating Companies
0-10,000	449	2,670,757	3.3	25.0
10,000-20,000	401	5,711,436	7.0	22.4
20,000-30,000	256	6,207,837	7.6	14.3
30,000-40,000	171	5,880,133	7.2	9.5
40,000-50,000	100	4,378,740	5.4	5.6
50,000-60,000	107	5,766,873	7.1	6.0
60,000-70,000	62	3,970,757	4.9	3.5
70,000-80,000	41	3,085,015	3.8	2.3
80,000-90,000	28	2,365,801	2.9	1.5
90,000-100,000	22	2,088,987	2.6	1.2
100,000-125,000	34	3,839,578	4.7	1.9
125,000-150,000	23	3,082,734	3.8	1.3
150,000-175,000	16	2,528,414	3.1	0.9
175,000-200,000	12	2,217,639	2.7	0.7
200,000-250,000	28	6,268,209	7.7	1.6
250,000-300,000	13	3,589,966	4.5	0.7
300,000-400,000	12	4,185,393	5.1	0.7
400,000-500,000	8	3,552,128	4.4	0.4
Over-500,000	9	9,903,054	12.2	0.5
Totals	1,792	81,293,451	100.0	100.0

This table does include the 145 member companies which did not return our questionnaire, but whose total production of 9,144,916 cu. yds. of ready mixed concrete was otherwise available.

Table 7

Average Production

Annual Production (thousand cu. yds.)	Number of Companies	Cubic Yards Produced
0-10	434	2,586,167
10-20	367	5,210,089
20-30	231	5,567,662
30-40	156	5,370,351
40-50	90	3,937,780
50-60	89	4,812,586
60-70	55	3,532,563
70-80	39	2,931,671
80-90	24	2,028,758
90-100	22	2,088,987
100-125	31	3,385,426
125-150	21	2,822,022
150-175	15	2,374,414
175-200	10	1,842,110
200-250	26	5,818,209
250-300	12	3,303,966
300-400	11	3,829,789
400-500	7	3,102,931
Over-500	7	7,603,054
Totals	1,647	72,148,535

Accumulated Percents of Totals	
Total Production	Total Companies
3.3	25.0
10.3	47.4
17.9	61.7
25.1	71.2
30.5	76.8
37.6	82.8
42.5	86.3
46.3	88.6
49.2	90.1
51.8	91.3
56.5	93.2
60.3	94.5
63.4	95.4
66.1	96.1
73.8	97.7
78.3	98.4
83.4	99.1
87.8	99.5
100.0	100.0

Per Company

Average Cubic Yards Per Company		
Per year	Per Month	Per Week
5,959	497	115
14,196	1,183	273
24,102	2,009	464
34,425	2,869	662
43,753	3,646	841
54,074	4,506	1,040
64,228	5,352	1,235
75,171	6,264	1,446
84,532	7,044	1,626
94,954	7,913	1,826
109,207	9,101	2,100
134,382	11,199	2,584
158,294	13,191	3,044
184,211	15,351	3,543
223,777	18,648	4,303
275,331	22,944	5,295
348,163	29,014	6,695
443,276	36,940	8,525
1,086,151	90,513	20,888
43,806	3,651	842

Table 6

Equipment and Plants in the Ready Mixed Concrete Industry

State	No. of Companies Reporting	No. of Mixers or Agitators	No. of Non-Agitating Units	No. of Stationary Plants	No. of Portable Plants
Ala.	26	302	36	39	5
Ariz.	10	225	33	20	1
Ark.	13	119	27	20	4
Calif.	106	2,436	418	264	28
Colo.	16	257	15	26	5
Conn.	21	230	12	27	—
Del.	3	41	2	5	—
D. C.	5	260	20	14	—
Fla.	53	989	28	106	7
Ga.	24	236	25	33	4
Idaho	7	55	10	9	2
Ill.	76	886	84	105	12
Ind.	67	690	61	89	11
Iowa	87	468	43	113	6
Kan.	41	340	37	51	9
Ky.	23	269	20	31	—
La.	35	398	34	51	2
Maine	6	73	12	11	2
Md.	20	340	13	31	1
Mass.	28	449	84	45	6
Mich.	111	1,106	84	132	10
Minn.	38	389	45	51	6
Miss.	19	158	10	21	4
Mo.	34	593	98	64	5
Mont.	16	109	34	21	4
Neb.	29	210	31	41	7
N. H.	9	61	1	12	1
N. J.	22	387	23	46	1
N. M.	7	135	2	11	1
N. Y.	57	1,295	103	119	6
N. C.	37	297	24	48	9
N. D.	4	43	3	6	3
Ohio	115	1,889	110	218	13
Okla.	27	243	40	42	6
Ore.	35	283	46	44	6
Pa.	110	1,343	97	165	8
S. C.	9	81	3	12	—
S. D.	7	41	33	8	—
Tenn.	46	345	24	56	3
Texas	61	808	100	111	20
Utah	13	167	24	17	7
Vt.	3	25	11	3	—
Va.	31	402	17	58	21
Wash.	30	366	90	42	7
W. Va.	15	285	58	29	3
Wis.	61	548	50	73	8
Other[1]	5	57	7	6	2
Canada	29	629	20	54	13
Totals	1,647	21,358	2,202	2,600	279

[1]*Includes all states and territories where less than three companies reported. (Alaska, Hawaii, Nevada, Rhode Island and Wyoming.)*

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Continued From Page 26

furnishing the data in Table 4 reported operation of 2,879 plants. Of the 2,879 plants, 2,470 were proportioning plants and 407 were central mixing plants.

Table 5 presents an analysis of the distribution of ready mixed concrete production in 1958 by size of company based on returns from 1,792 companies. The largest number of companies are in the three smaller brackets: 0 - 10,000 cubic yards, in which there are 449 companies responsible for 3.3 per cent of the total production; 10,000 - 20,000 cubic yards, in which there are 401 companies, responsible for 7 per cent of the total production; 20,000 - 30,000 cubic yards, in which there are 256 companies, responsible for 7.6 per cent of the total production.

These 1,106 companies, representing almost 62 per cent of the companies reporting, produced approximately 18 per cent of the total reported production. Nine companies produced more than 500,000 cubic yards of ready mixed concrete last year, accounting for more than 12 per cent of the total production.

Plants and Equipment

Table 6 presents data by states on equipment and plants in the ready mixed concrete industry. The 1,647 companies contributing data used in this table reported ownership of 21,358 mixers and/or agitators, or an average of approximately 13 such units per company.

These 1,647 companies reported ownership of 2,600 stationary plants and 279 portable plants, or an average of approximately 2 plants per company.

Tables 7, 8 *and* 9 are included in our survey for the first time. They have been prepared in response to a request from members of the industry for additional data. *Table* 7 presents data on the average weekly, monthly and annual production per company, based on size of company. *Table* 8 shows average monthly production per truck mixer or agitator, based on size of company. *Table* 9 presents the same data shown in Table 8 on a state basis.

In addition to the nine tables, our survey questionnaire developed this year for the first time information on the extent to which ready mixed concrete producers are engaged in closely related industries.

Of the 1,647 companies, 417 companies, or 25 per cent, reported that they also produced concrete masonry products in addition to ready mixed concrete; 185 companies, or 11 per cent, are engaged in precast concrete operations; 130 companies, or 8 per cent, are engaged in the production of concrete pipe; 66 companies, or 4 per cent, reported prestressed concrete operations.

Table 8

Average Production Per Delivery Unit in the Ready Mixed Concrete Industry

Annual Production (thousand cu. yds.)	Number of Companies	Number of Plants	Cubic Yards Produced	Number of Delivery Units	Cubic Yards Produced Per Month		Average Number of Delivery Units	Average Number of Delivery Units
					Per Plant	Per Truck	Per Company	Per Plant
0-10	434	488	2,586,167	1,935	442	111	4.45	3.96
10-20	367	485	5,210,089	2,729	895	159	7.43	5.62
20-30	231	323	5,567,662	2,393	1,436	194	10.35	7.40
30-40	156	252	5,370,351	2,144	1,776	209	13.74	8.50
40-50	90	171	3,937,780	1,402	1,919	234	15.57	8.19
50-60	89	143	4,812,586	1,595	2,805	251	17.92	11.15
60-70	55	114	3,532,563	1,213	2,582	243	22.05	10.64
70-80	39	84	2,931,671	809	2,908	302	20.74	9.63
80-90	24	57	2,028,758	582	2,966	290	24.25	10.21
90-100	22	52	2,088,987	594	3,348	293	27.00	11.42
100-125	31	82	3,385,426	899	3,441	314	29.00	10.96
125-150	21	77	2,822,022	722	3,054	326	34.38	9.37
150-175	15	53	2,374,414	594	3,733	333	39.60	11.20
175-200	10	41	1,842,110	499	3,744	308	49.90	12.17
200-250	26	105	5,818,209	1,410	4,618	344	54.23	13.42
250-300	12	73	3,303,966	868	3,772	317	72.33	11.89
300-400	11	59	3,829,789	871	5,409	366	79.18	14.76
400-500	7	73	3,102,931	771	3,542	335	110.14	10.56
Over-500	7	147	7,603,054	1,530	4,310	414	218.57	10.40
Totals	1,647	2,879	72,148,535	23,560	2,088	255	14.30	8.18

Table 9

Average Production Per Delivery Unit

in the Ready Mixed Concrete Industry, by States

State	Number of Companies	Number of Plants	Cubic Yards Produced	Number of Delivery Units	Cubic Yards Produced Per Month		Average Number of Delivery Units	Average Number of Delivery Units
					Per Plant	Per Truck	Per Company	Per Plant
Ala.	26	44	907,858	338	1,719	224	13.00	7.68
Ariz.	10	21	1,064,158	258	4,223	344	25.80	12.28
Ark.	13	24	397,457	146	1,380	227	11.23	6.08
Calif.	106	292	10,366,259	2,854	2,958	302	26.92	9.77
Colo.	16	31	1,201,422	272	3,230	368	17.00	8.77
Conn.	21	27	848,065	242	2,617	292	11.52	8.96
Del.	3	5	155,887	43	2,598	302	14.33	8.60
D. C.	5	14	910,281	280	5,418	271	56.00	20.00
Fla.	53	113	3,686,940	1,017	2,719	302	19.18	9.00
Ga.	24	37	722,220	261	1,627	231	10.87	7.05
Idaho	7	11	168,023	65	1,273	215	9.28	5.90
Ill.	76	117	3,232,109	970	2,302	278	12.76	8.29
Ind.	67	100	1,947,229	751	1,623	216	11.20	7.51
Iowa	87	119	1,148,979	511	805	187	5.87	4.29
Kan.	41	60	1,261,552	377	1,752	279	9.19	6.28
Ky.	23	31	595,410	289	1,601	172	12.56	9.32
La.	35	53	1,480,154	432	2,327	286	12.34	8.15
Maine	6	13	166,996	85	1,070	164	14.16	6.53
Md.	20	32	1,300,458	353	3,387	307	17.65	11.03
Mass.	28	51	1,565,758	533	2,558	245	19.03	10.45
Mich.	111	142	3,694,074	1,190	2,168	259	10.72	8.38
Minn.	38	57	1,113,840	434	1,628	214	11.42	7.61
Miss.	19	25	455,878	168	1,520	226	8.84	6.72
Mo.	34	69	2,204,497	691	2,662	266	20.32	10.01
Mont.	16	25	304,638	143	1,015	178	8.93	5.72
Neb.	29	48	848,382	241	1,473	293	8.31	5.02
N. H.	9	13	164,080	62	1,052	221	6.88	4.76
N. J.	22	47	1,220,782	410	2,165	248	18.63	8.72
N. M.	7	12	427,968	137	2,972	260	19.57	11.41
N. Y.	57	125	4,382,350	1,398	2,922	261	24.52	11.18
N. C.	37	57	774,143	321	1,132	201	8.67	5.63
N. D.	4	9	113,645	46	1,052	206	11.50	5.11
Ohio	115	231	5,105,078	1,999	1,842	213	17.38	8.65
Okla.	27	48	727,122	283	1,262	214	10.48	5.89
Ore.	35	50	712,084	329	1,187	180	9.40	6.58
Pa.	110	173	3,670,826	1,440	1,768	212	13.09	8.32
S. C.	9	12	290,824	84	2,020	289	9.33	7.00
S. D.	7	8	142,531	74	1,485	161	10.57	9.25
Tenn.	46	59	1,044,527	369	1,475	236	8.02	6.25
Texas	61	131	3,279,233	908	2,086	301	14.88	6.93
Utah	13	24	676,288	191	2,348	295	14.69	7.95
Vt.	3	3	39,167	36	1,088	91	12.00	12.00
Va.	31	79	1,358,958	419	1,434	270	13.51	5.30
Wash.	30	49	1,024,192	456	1,742	187	15.20	9.30
W. Va.	15	32	542,787	343	1,414	132	22.86	10.71
Wis.	61	81	1,672,564	598	1,721	233	9.80	7.38
Other[1]	5	8	154,932	64	1,614	202	12.80	8.00
Canada	29	67	2,875,930	649	3,577	369	22.37	9.68
Totals	1,647	2,879	72,148,535	23,560	2,088	255	14.30	8.18

[1]*Includes all states and territories where less than three companies reported. (Alaska, Hawaii, Nevada, Rhode Island and Wyoming.)*

Metal pallets are placed on conveyor before being filled.

After trimming, pallets are loaded onto wooden racks.

Tile are separated from pallets after curing, moved to storage warehouse.

How A New Ro-Tile Plant Casts Roofing Units

Pallets are washed in special solution.

Blue Mountain Ro-Tile Corporation has opened a new plant in Walla Walla, Wash., according to Dale V. Thompson, president of National Ro-Tile Corp., the firm which franchises the manufacture of Ro-Tile concrete roofing.

The new plant, which was built at a cost of $125,000, includes a factory, curing rooms, warehouse space and administrative offices. One of the most modern factories on the Pacific Coast, it utilizes machinery of the latest type designed and manufactured by the National Ro-Tile Corp.

The plant layout provides for production-line efficiency in the manufacture of the roofing tile. Sand for the concrete mix is dumped outside of the new factory and taken by conveyer to large multi-ton storage bins. The sand is then fed by gravity into the mixing bins where special fade-resistant colorant, cement and water are added. The mixture is then carried by conveyer to the Ro-Tile machine where it is vibrator packed on metal pallets.

The tile continues along a conveyer where it is trimmed by trimming blades and loaded on wooden racks which provide for free circulation of air between the tiles. Fork lifts move the Ro-Tile to temperature-regulated rooms where the tile is cured.

Visitors to the grand opening of the Blue Mountain Ro-Tile plant were able to see the entire process of tile manufacturing. The application of the tile was also demonstrated on the roof of the factory.

Visitors were given an opportunity to inspect Ro-Tile stone, a decorative stone sold by Ro-Tile dealers. Both the roofing tile and stone will be sold by Blue Mountain Ro-Tile.

The new Walla Walla plant, one of several franchised by National Ro-Tile, is independently owned. Fred Amery of Walla Walla is the president of Blue Mountain Ro-Tile Corp. Other officials include Gordon Gilmore, vice-president, and Wayne Hereford, secretary-treasurer, both of Walla Walla.

Tom Esary is general and sales manager for the firm, and Henry Butherus, Jr., is plant superintendent. The new operation will have 15 employees.

At plant opening were A. S. Anderson, advertising executive; Henry Butherus, plant supt. and his assistant; Dale Thompson, national Ro-Tile president and Mrs. Thompson; LaMar Thompson, vice president; Tom Esary, general and sales manager.

40c Marquette Dividend

The board of directors of Marquette Cement Mfg. Co., Chicago, on May 8 authorized payment of the regular second quarterly dividend of 40c per common share, payable June 5. This brings Marquette quarterly dividends to 80c for this year, for the two quarters.

New Gregco Distrib.

The new distributor in Arkansas for Gregco equipment will be Kern-Limerick, Inc., of Little Rock, according to an announcement made by the L. O. Gregory Mfg. Co., Memphis. Gregco manufactures aggregate batching plants.

GE Radio SE Office Moves

General Electric Communication Products Dept. has moved its five-state southeastern regional two-way radio sales office from Atlanta, to Tallahassee, Fla. The office is now in the Petroleum Building.

Richardson Moves Philadelphia, Calif., Offices

Richardson Scale Co. has announced that their Western Regional Office will henceforth be at 1369 Laurel St., San Carlos, Calif. San Carlos is about 25 miles south of San Francisco.

Western manager is R. H. Schonfisch.

The Philadelphia, Pa., regional office has been moved to 11 Park Road, Havertown, Pa., with a mailing address of PO Box 602. Alan Farnham has been added to the Philadelphia office staff.

White Promotes Five

White Motor Co., Cleveland, has announced the following promotions:

Joseph E. Adams, vice president-manufacturing since 1956, was elected to the newly created position of executive vice president for manufacturing and development.

John C. Tooker has been named vice president of White and general manager of Reo Div. He has been with Reo Div. of GM.

Noah O. Gresham was appointed vice president of wholesale operations.

Frank J. Force and Lee J. Perme were named assistant secretaries of the parent corporation.

Alpha Portland Names Brownstead to Board

Ernest F. Brownstead, operations vice president, has been elected to the board of directors of Alpha Portland Cement Co., Easton, Pa. His election fills a board vacancy caused by the death of Vermont Hatch.

Harold F. Stepanek was named secretary-treasurer, succeeding Karl Wright, who has retired after 49 years with Alpha.

Edgar R. Fackenthal was named assistant secretary-treasurer, and H. Eugene Brown as vice president, Midwest sales division. All other board members and officers were re-elected at the meeting.

Ready-mix operators everywhere are taking to the brawny, fast-charging Rockets' solid dependability and knack for cutting costs. You will too!

Longer Life, lower maintenance . . . because Rockets are crammed with extra "beef" to take all the slam-bang you can give 'em . . . and still come back for more, day after day, year after year. Rocket drums, for instance, have twice the welding normally found on other mixers. This and many other quality construction features mean lower maintenance costs.

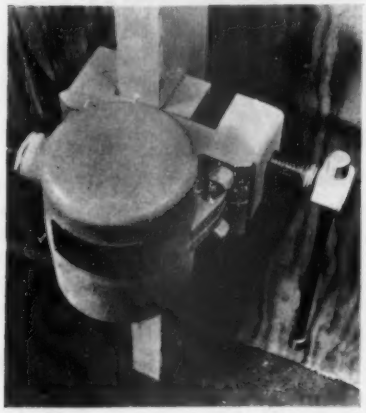
Choose from a complete line of Rocket models in NRMCA approved capacities of 3½, 4, 5, 5½, 6, 7 and 8½ cubic yards. Front Engine Drive or Flywheel P.T.O. optional.

For a quality mixer that costs less to own and operate, see your Rocket distributor or write today to

CTM
CONCRETE TRANSPORT MIXER COMPANY
4585 Fyler Ave., St. Louis 9, Mo.
FLanders 2-7800

What's New in

EQUIPMENT and MATERIALS



Vise Lock Vibrator Mounting

A new vise lock mounting, with 2½" jaw opening, is reported to make Cleveland Vibrator's RC-5 electric vibrator more versatile because of easy portability and quick attachment.

A U-shaped head with a serrated steel plate clamps the RC-5 to 2x4" or larger wooden studs, and works equally well on iron or steel structures. The RC-5 comes with 9' heavy duty cable, is water-tight and dust-tight, weighs 39 lbs. overall.

Cleveland Vibrator Co., Cleveland, Ohio.

Enter C41 on Inquiry Card

Two Syntron Catalogs

Two new catalogs, one on vibrators and the other on vibratory packers and jolters, have been published by Syntron.

The electric vibrator booklet, with 12 pages, gives data and specifications for 14 standard vibrators. A 4 page catalog on vibratory packers and hydraulic jolters lists eight of the former, two of the latter.

Syntron Co., 324 Lexington Ave., Homer City, Pa.

Enter C42 on Inquiry Card

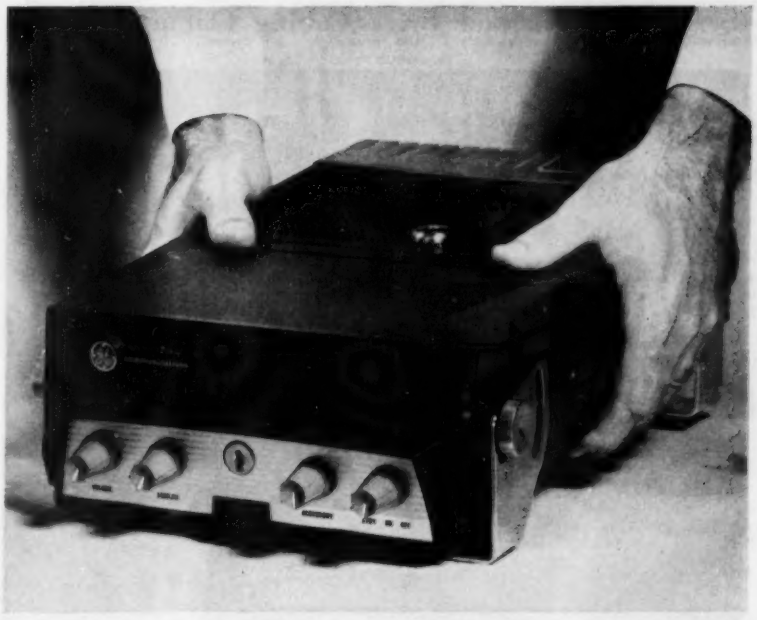
Mixer Application Data Book

A new "Concrete Mixer Application Data Book" is available now from Ford Motor Co. The book was designed to assist ready mix companies in proper truck selection, and in selecting equipment to fit specific job requirements. The book covers the various types of mixer bodies and drives, facts on mixer body operation, mixer application charts, tandem specification data and other such material.

The 30 page booklet is available from Ford dealers.

Enter C43 on Inquiry Card

Transistorized Two-Way Radios



GE has announced a new line of transistorized two-way radio equipment said to be an advanced design containing the highest powered transistorized models, the smallest sizes and lowest battery drain made to date.

The equipment, called the GE Transistorized Progress Line, will be available in units up to 75 watts and down to 30 and 10 watt units. Sizes come as small as 8-⅝" wide, 12" long and 4" high. Only three tubes are used in the low wattage categories and 4 tubes in the 30 and 75 watt models.

By going to as high as 75 watts in the smallest package offered in the field, GE feels that units with this much power offer more talk-back range for vehicles travelling great distances from their dispatch offices.

In order to cut battery drain, the 75 watt unit is reported to use 0.040 amps when on standby.

General Electric Communication Products Dept., Box 4197, Lynchburg, Va.

Enter C44 on Inquiry Card

Equipment and Materials . . .

No Pre-Wetting For New Paint

A vinyl masonry paint that does not require pre-wetting of porous masonry surfaces has been announced by Carbola. The paint is made for exterior or interior masonry surfaces and can be used as a stipple paint.

The paint contains Polyvinylacetate, cement, pigments and other additives that act as built-in surface conditioners. Aside from the elimination of pre-wetting, the paint is said to have greatly increased hiding ability, with one coat often all that's needed where two or more have been necessary in the past. It can be put on with brush, roller or sprayer.

Carbola Chemical Co., Natural Bridge, N.Y.

Enter C45 on Inquiry Card

Pneumatic Conveying

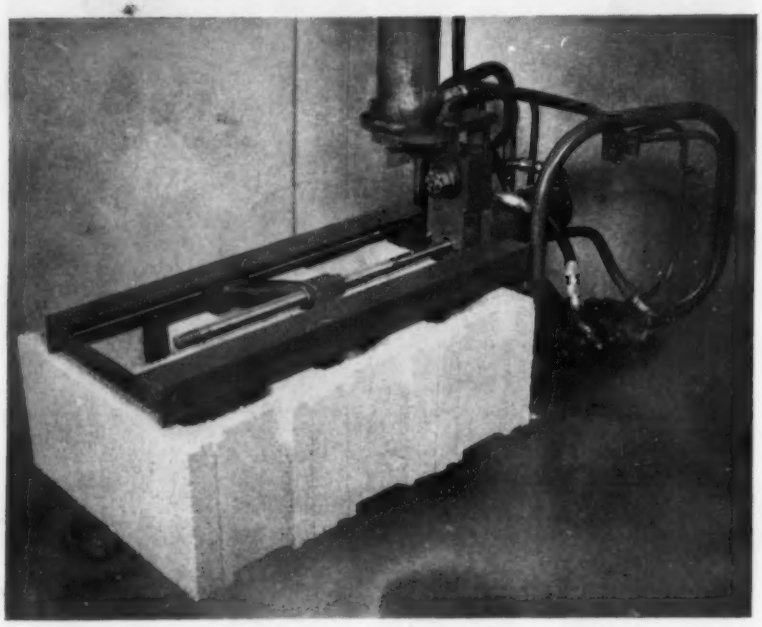
Engineered Equipment now has a complete line of pneumatic conveying equipment for handling bulk cement and similar material. This handling system is said to drastically cut new plant construction with the need for cement elevators or screw conveyors eliminated, and give savings in maintenance.

E/E engineers can convert an existing plant; components can be used with any pneumatic bulk cement truck equipment.

Engineered Equipment Inc., Waterloo, Iowa.

Enter C46 on Inquiry Card

Block and Brick Cubing Clamp



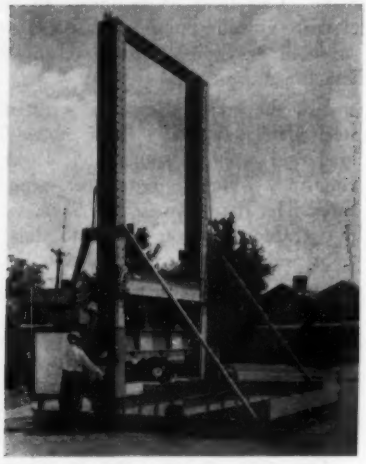
Besser now has a set of parts adaptable to all combination block and brick cubing clamps. The set is said to make it possible to pick up block from the top, leaving three clear sides on cored units — two clear sides on solid units.

Fingers that go into cored holes are properly spaced for two and three core units. The plate nearest the operator is deep enough to serve as a guide so fingers will be in line with cored holes before the clamp is lowered. Adjustment is great enough, Besser reports, to handle all cored and solid units. The clamp is designed primarily for use in cubing from a conveyor.

With the combination clamp the operator is able to place all block down level, with no tipping necessary. Block may be picked up either from the pallet or conveyor after depalleting.

Besser Co., Alpena, Mich.

Enter C47 on Inquiry Card



Pipe Tester

A new model PT-250 pipe testing machine with loading capacity of 500,000 lbs. is designed to take pipe in 8′ lengths, up to 14′ diameter, with the frame extendable to handle pipe in 16′ lengths.

Two 8′ diameter hydraulic rams have a working stroke of 10″. The load indicator is 16″ diameter and shock proof, mounted in a steel lock

box along with the pump assembly. Pressure beams are counterbalanced so that their weight will not affect the gauge reading.

Forney's Inc., Tester Div., Box 310, New Castle, Pa.

Enter C48 on Inquiry Card

Revolving Brush Burr Remover

Bergen is now marketing a new revolving brush burr remover that quickly and cleanly removes burrs that occur when cores, plates and stripper shoes have become worn.

The brush revolves under its own power at about 600 rpm, sweeping all burrs and crumbs off the block with no damage to the block. It can be installed on any type of high production block machine in about one hour, Bergen says.

Bergen Machine & Tool Co., 189 Franklin Ave., Nutley, N.J.

Enter C49 on Inquiry Card

Supreme Strand Wall Charts

Prestressers using Supreme Strand chucks to end-anchor wire strand can get new wall charts containing service information on the chucks.

The charts are 19" x 25", with simple sketches of all phases of SS chuck use and maintenance. No charge for the charts. Shown looking at one of the charts is Marshall Keroff, SS western manager, with Ward Williams production manager for the Concrete Products Div. of Consumers Co., Chicago.

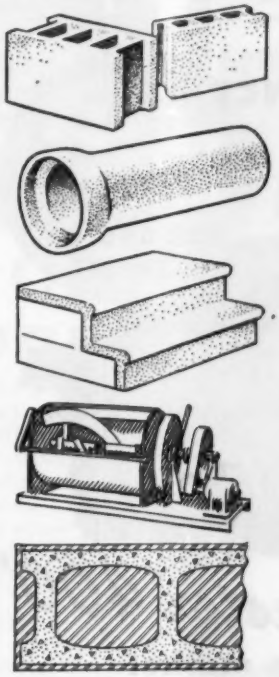
Supreme Products Co., 2222 S. Calumet Ave., Chicago 16.

Enter C50 on Inquiry Card

How Some Manufacturers Make *BETTER* Concrete Products at *LOWER* Cost, with *FLY ASH*

Fly Ash is a low-cost product. It is an extremely fine, wettable powder, mainly silica and alumina. Most of its particles are spherical in shape. It is a highly effective Pozzolan.

Many alert manufacturers, using a percentage of Fly Ash with the Portland cement, turn out a concrete of equal or improved qualities at a substantial saving in cost of materials.



Compressive Strength: Fly Ash Increases It

Many independent tests on concrete products made with a percentage of Fly Ash have shown equal or better 28-day compressive strengths as compared to those made with straight Portland cement. There is little or no reduction in 3-day strengths, especially where steam curing is used.

Sulfate Resistance: Fly Ash Improves It

Sulfate resistance is highly important in concrete sewer pipe. Tests on specimens of concrete containing a portion of Fly Ash showed greater resistance to the action of sulfate waters than did straight Portland cement concrete.

Finish and Texture: Fly Ash Makes Both Better

Comparisons show that concrete products made with mixes containing a percentage of Fly Ash have sharper edges and corners . . . smoother, more uniform surfaces . . . than products made with straight Portland cement.

Life of Machines and Moulds: Fly Ash Lengthens It

Fine, spherical particles of Fly Ash have a "ball bearing" action which increases flow and plasticity of the concrete and reduces abrasion. This means less wear on mixer blades, hoppers and moulds—longer life of your equipment.

Filling Moulds and Frames: Fly Ash Helps It

The greater plasticity of concrete containing Fly Ash reduces adhesion to pallets, and permits faster and more complete filling of moulds.

Fly Ash is Used in Carbonation and in Autoclaving

A drying cycle including carbonation after steam curing is finding favor in non-autoclave plants. Carbonation is more effective where up to 25% Fly Ash is used. In high pressure steam curing (autoclaving) a higher percentage of siliceous material is required than in ordinary steam curing. A blend of 50-50, cement and Fly Ash, by weight, has given excellent results.

FLY ASH improves Compressive Strength, Texture, Finish, Sharpness of Edges and Corners, and Uniformity of Color of the Concrete.

FLY ASH increases "Green" Strength, Resistance of the Concrete to Penetration by Water, and Resistance to Action of Sulfuric Acid and Sulfates.

FLY ASH reduces Cost of Materials, Maintenance on Wearing Parts, Sticking to Pallets and Moulds, Cracking in Handling of the Concrete.

Write for Information or Technical Help

It costs nothing to get the facts on Fly Ash; it might mean a great deal in the success of your operation. Contact any of the following for specific information and technical data on use of their Fly Ash of proven performance.

McNEIL BROTHERS, INC.
P.O. Box 4015, Bridgeport 7, Conn.

CHICAGO FLY ASH COMPANY
228 N. La Salle St., Chicago 1, Ill.

DETROIT EDISON COMPANY
2000 Second Ave., Detroit 26, Mich.

WALTER N. HANDY COMPANY, INC.
P.O. Box 549, Evanston, Ill.

Equipment and Materials . . .

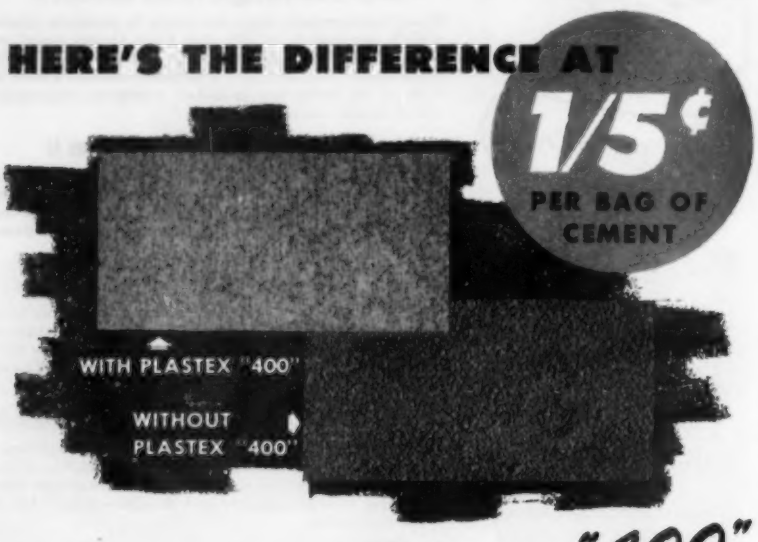
Cement Cracking

An 8 page folder, issued by Alpha, is designed to help concrete producers explain and control cracking. The folder shows the 8 most common types of cracks and explains the cause of each. In addition, there are sketches of magnified sections of concrete showing 6 less common types of cracks and indicating their probable causes.

Called "Cracks in Concrete" the bulletin is the fourth in a series of service bulletins called "Craftsmanship in Concrete."

Alpha Portland Cement Co., 15 S. Third St., Easton, Pa.

Enter C51 on Inquiry Card



New and Improved *Plastex* "400" at the lowest price on the market

QUALITY - ECONOMY - GUARANTEE

The three important facts about Edick Laboratories' new Plastex "400".

QUALITY: This special formula (not a detergent) will give you a sharper cornered—lighter colored—smoother surfaced, better textured block—that is *both* denser and stronger!

ECONOMY: ONE tablespoon of dry, powdered Plastex "400" gives you better dispersing, wetting, densifying and plasticizing! Easier stripping will double the life of your mold box liners! The cost of Plastex "400" is but a fraction of the savings achieved through reduced culls and seconds!

GUARANTEE: Your money back—if Plastex "400" does not make a stronger block and provide the economy and quality you expect—dollar for dollar and pound for pound!

- 20% lighter color—better texture.
- Greater plasticity—reduced cracking.
- Stronger, denser block.
- Reduced moisture absorption!
- Simple to use—add dry to mix.
- Hydrates all your cement.

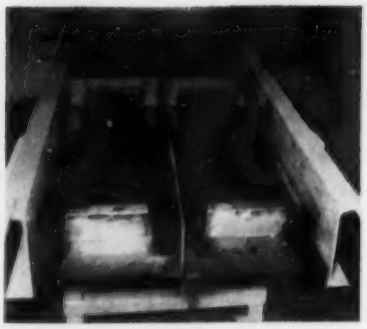
PRICES F.O.B. MILWAUKEE

1 drum	15½c per lb.
2 drums	14½c per lb.
5 drums	13c per lb.
10 drums	12½c per lb.

MANUFACTURED AND DISTRIBUTED BY

Edick LABORATORIES, INC.

2358 S. Burrell Street, Milwaukee 7, Wisconsin



Modular Multi-Mold Machine

For producing specialty items, Superior has designed a modular Multi-Mold machine adaptable to making such units as splash block, parking blocks, patio stone and others.

The machine features a heavy duty steel base, an eccentric driven by a ½ hp motor, vibration insulators between the base and casting area, and a 15 sq. ft. top plate for vibrating pan type molds.

The unit adapts to different products by removal of the flat surface plate and addition of accessory side walls. The table is pre-drilled for attachment of all specialty items. Handling time in moving both molds and product is said to be 30% less with this machine.

The photo shows the unit with forms in place.

Superior Concrete Machinery Co., Columbus, Ohio.

Enter C52 on Inquiry Card

Vibratory Feeders

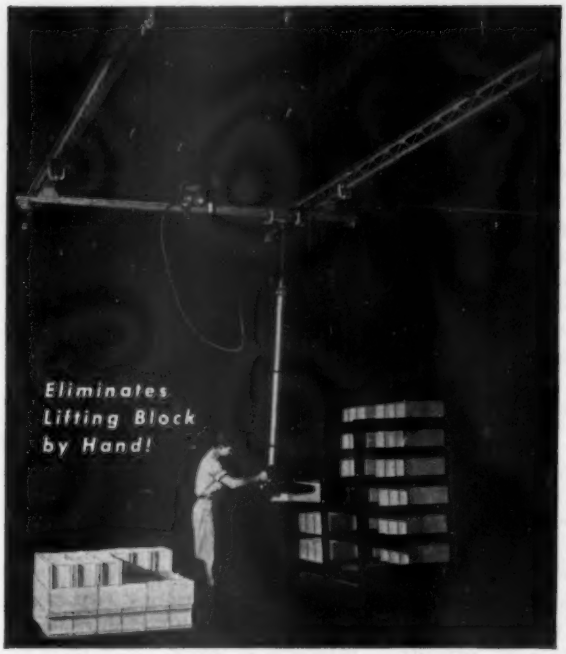
Syntron has published a new catalog on their line of vibrating feeders, with the 32 page book covering descriptions, data and specifications for the line of six small capacity, four heavy duty and three extra heavy duty electromagnetically vibrated feeders.

Other equipment described includes several other types of feeders, conveyors and elevator feeders.

Syntron Co., 324 Lexington Ave., Homer City, Pa.

Enter C53 on Inquiry Card

Continued on page 38



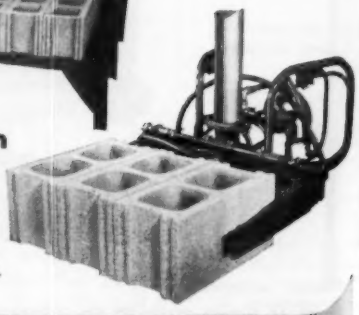
BESSER Bridge Crane
BLOCK CUBER

Now — you can eliminate the old-fashioned method of lifting block . . . one at a time . . . by hand. The Besser Bridge Crane Block Cuber builds a cube for convenient fork lift truck transportation to storage yard. Operator merely guides the easy, rolling crane which carries the block to the correct position for making a neat, square cube. Pays for itself through labor savings in a short time. Simplifies inventory count. Permits neat stockpiling. Saves yard space.

Write for Bulletin No. 103.

Cubing platform

Open grating of welded all-steel construction. Self-cleaning, with guide for perfect alignment of block. Note how easily 3 blocks are tipped over, in a single motion for first course.



Combination clamp

Simplifies handling of block or brick from rack to cube. Convenient control levers eliminate finger fatigue . . . make it easy to remove block from highest and lowest deck.

BESSER COMPANY

Complete Equipment for Concrete Block Plants

ALPENA, MICHIGAN, U.S.A.

A7–125

DUR-O-WAL

RIGID BACKBONE OF STEEL
FOR EVERY MASONRY WALL

IT'S THE **Steel + Design**
THAT ASSURES **Results**

COMPARE THESE WEIGHTS

Standard Dur-O-waL 187 lbs. per 1000 ft.
Standard Ladur Type 139 lbs per 1000 ft.

Insist on genuine Dur-O-waL for crack-free masonry walls with a backbone of steel

New Companion Product for Masonry Walls

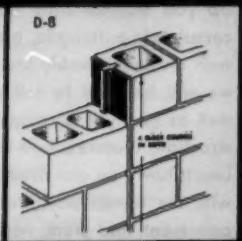
Rapid CONTROL Joint

Trademark

Pat. Pending

WIDE FLANGE

Wide flange rubber control joint with concave edged, neoprene compound flanges allows easy compression; tight control joints.



DUR-O-WAL

Rigid Backbone of Steel For Every Masonry Wall

Dur-O-wal Div., Cedar Rapids Block Co., **CEDAR RAPIDS, IA.** Dur-O-wal Prod., Inc., Box 628, **SYRACUSE, N. Y.** Dur-O-wal Div., Frontier Mfg. Co., Box 49, **PHOENIX, ARIZ.** Dur-O-wal Prod., Inc., 4500 E. Lombard St., **BALTIMORE, MD.** Dur-O-wal of Ill., 119 N. River St., **AURORA, ILL.** Dur-O-wal Prod. of Ala., Inc., Box 5446, **BIRMINGHAM, ALA.** Dur-O-wal of Colorado, 29th and Court St., **PUEBLO, COLORADO** Dur-O-wal Inc., 165 Utah Street, **TOLEDO, OHIO**

Equipment and Materials . . .

Low Cost, Versatile Precasting Machine

Said to be the first low cost precasting machine to combine versatility with ruggedness, the new Ram-Con produces units for the lintel, sill and precast specialty market.

The machine is entirely air operated, using four cylinders and an overhead mounted air ram which delivers 1700 blows per minute. The controls are mounted on a portable table at a height convenient to the operator.

The standard model Ram-Con will make units up to 8'8" long, 24" wide and 10" deep. Special size machines can be made to your specifications.

The machine is designed to allow variance of length as well as height and width of product; also to make angular units, copings, notched lintels, etc. The maker says two men can produce 400 lineal feet of lintels per day.

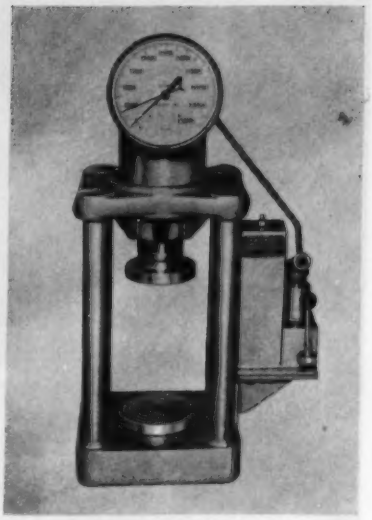
Concrete Equipment Co., Box 595, Florence, Ala.

Enter C54 on Inquiry Card

Portable Concrete Testing Machine

Testing of concrete on the job site is said to be easier with introduction of a portable 250,000 lbs. capacity testing machine made by Soiltest.

The tester is designed for testing 6x12" cylinders, beams, 2" cubes, concrete block and other specimens. The same unit can also test tile, brick, plastic, ceramics and similar materials, in compression or flexure.



The tester is self-contained with no pressure or electrical connections required for operation. All loads are developed by double piston hand operated pump; read on an 8" dial. The tester itself is 38" high, 21" wide including pump assembly; accurate to 1%.

Soiltest Inc., 4711 W. North Ave., Chicago 39.

Enter C55 on Inquiry Card

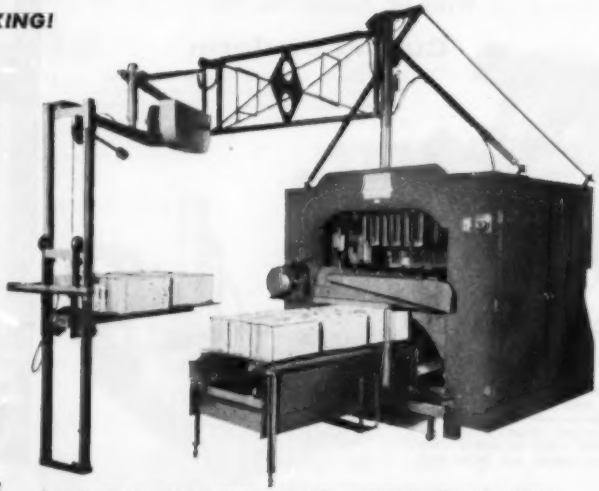
PRASCHAK THUNDERBOLT

MODEL 30 3-BLOCK AUTOMATIC BLOCK MACHINE

THE MACHINE THAT HAS THE INDUSTRY TALKING!

Do you wonder how we can offer this truly fine, completely automatic, plain pallet block machine at such an unbelievably low price? Drop us a line, and we will be glad to tell you how we can do it, as well as give you a complete explanation of the construction, features, and advantages of this machine. Learn how you can produce blocks of higher quality with the lowest possible investment; learn how you can meet and beat competition with blocks made on the Praschak Thunderbolt!

These machines have earned a high reputation among block manufacturers, and Thunderbolt blocks are actually "setting the pace" in many trade areas!



NOW AVAILABLE BY CASH PURCHASE OR ON EASY TIME PAYMENTS

COMPLETE AS SHOWN READY TO GO—EQUIPPED WITH 8" MOULD FRONT END FEEDER & MAGNETIC FORK OFFBEARER

MODEL 30, TWO-BLOCK MACHINE, AS ABOVE—$9,000

$12,000

Write for Details

PRASCHAK MACHINE CO. MARSHFIELD, WIS.

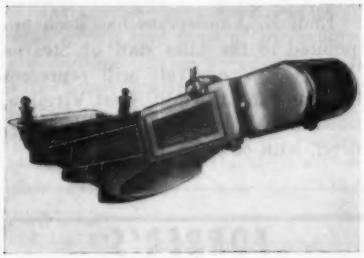
Factory to You Prices

Concrete Lawn Trim Form

A new concrete lawn trim form, made of fiberglas-reinforced plastic, has been developed by Zeidler Concrete. The form is made entirely in one piece, with light weight, easy stripping, acid and alkali resistant.

Zeidler Concrete Products Co., Clear Lake, Iowa

Enter C56 on Inquiry Card



Overhead Magnet Hi-Capacity Feeders

New overhead-magnet, heavy capacity bulk material feeders use the overhead magnet design to facilitate installation where regular below deck magnet would necessitate processing line modifications, Syntron announces.

The feeders are electromagnetically vibrated 3600 times a minute in capacities in the hundreds and thousands of tph classifications.

Syntron Co., Homer City, Pa.

Enter C57 on Inquiry Card

$17 Million Expansion for General Portland Cement

An expansion and modernization program involving an estimated expenditure of $17 million has been approved by the board of directors of General Portland Cement Co. The plan will involve several of the company plants.

Smith W. Storey, board chairman and president, said that the program includes a project for the company's Tampa, Fla., plant to increase capacity by about 3 million bbls. annually. Included in this new capacity are facilities for doubling the production of white cement. Present capacity of the Tampa plant is 4 million bbls. Work on the addition will start at once.

General Portland recently built a new plant near Miami, and has other plants in Texas and Tennessee. The firm recently acquired, through merger, plants of Consolidated Cement Corp. in Ohio, Kansas and Michigan.

Prescon Opens Dallas Office

Kenneth Braselton is in charge of the new offices recently opened in Dallas, Tex., by Prescon Corp.

Power Shovel To Distribute Hydrocranes in Indianapolis

Power Shovel Co., of Indianapolis, Ind., has added Hydrocranes to the line of Bucyrus-Erie equipment that the firm distributes.

NOW A COMPLETELY
AUTOMATIC
CUBING MACHINE
THE CLANTON "AUTO-CUBE"
SERVES UP TO 3 HIGH VOLUME MACHINES SIMULTANEOUSLY
ELIMINATES 2 TO 3 MEN PER MACHINE IN YOUR CUBING OPERATION
YOUR CHOICE OF EITHER FULLY OR SEMI-AUTOMATIC OPERATION
AVAILABLE IN 4 MODELS TO ACCOMMODATE ANY SIZE PLANT OR PRODUCTION VOLUME
Only the Clanton "Auto-Cube" offers block plant operators so many exclusive advantages:
Basic design and installation supervised by engineers representing the manufacturer.
Provides automatic return of pallets to block machine.
Cubing operation is either synchronized with the rate of cycles of your machine or independently operated.
Designed to handle all shapes and sizes of blocks, veneer and specialty products.
Protects product quality and eliminates costly breakage and chipping losses caused by handling.
Labor and material savings alone will amortize complete cost during first year's operation.
Other Components for Your Block Plant Automation
CLANTON "SERRATED-KNIVES"
CLANTON "AUTO-RACK"
CLANTON "AUTO-LOADER"
For complete details write or wire
CLANTON CORPORATION
9260 Derrington Place, Pacoima, Calif.
Quality and Quantity with Clanton Automation

Ready Mix Manual Newly Published

A "Manual of Recommended Practice For the Production, Delivery and Use of Ready Mixed Concrete" has just been published by The Concrete Industry Board, Inc., of New York City.

Suggested procedures for facilitating the day-to-day working relationship between the producer, contractor, architect or engineer are recommended.

This non-technical manual, believed to be the only one of its kind, deals largely with business relations of the buyer and seller of concrete. It was compiled from the experiences of all the professions and trades in the concrete construction industry, according to Admiral J. J. Manning, the board's managing director. It covers all aspects of concreting—from writing specifications through placement.

The purpose of the manual is to simplify the "purchaser-producer" relationship, making possible efficient ordering and delivery procedures. A better understanding of problems faced by the producer will make it easier for the contractor to order and obtain better deliveries of ready mix concrete.

Also, an appreciation by the producer of the contractor's problems will improve the relationship during and after concrete delivery.

The 11-page manual covers every activity encountered in concreting and includes circumstances dealing with writing specifications, requesting of quotations, the contractor's superintendent taking over, orders placed for delivery, conditions before the concrete is loaded, the concrete during delivery, condition of equipment.

The 13-man Committee on Ready Mixed Concrete, includes architects, consulting engineers, testing laboratories, contractors and ready mix producers.

The 5x7-in. pocket size Manual, priced at $1.00, may be obtained by writing, Admiral J. J. Manning, Managing Director, The Concrete Industry Board, Inc., 220 E. 42nd St., New York 17, N. Y.

Cook Bros. Appointments

Cook Bros. Equipment Co., has announced the following appointments:

Herb Wein is now southeastern regional manager, taking over territory including Alabama, Georgia, Florida and Mississippi, with sales office in Atlanta.

Bill Langham is new southwestern regional manager, with office in Dallas and territory including Texas, Oklahoma, Arkansas, Louisiana and parts of three other states.

S. R. Gentry, Jr., formerly southern regional manager, is now acting as sales manager for the Challenge Mixer division.

New Stearns Salesman

Emil B. Vandervate has been appointed to the sales staff of Stearns Mfg. Co. Vandervate will represent the company in Ohio, West Virginia, eastern Kentucky and western Maryland, with office in Marion, Ohio.

PREVENT CONCRETE "BUILD UP" with AMAZING, NEW KLEEN-MIX

Forrer's remarkable, new KLEEN-MIX is an easy, inexpensive way to prevent concrete "build up" on mixers, hoppers, conveyors, skip hoists, etc. Spray or brush on KLEEN-MIX the night before, and at the end of the day, only a putty knife and brush are needed to whisk off hardened concrete.

Note these advantages!

- Cuts clean-up time in half
- Requires only brush and scraper
- No chisel or air hammer needed
- Increased equipment life
- Easy to apply

Order a trial supply today!

FORRER'S 2225 No. Humboldt Ave., Milwaukee 12, Wis.

FORRER'S
STAR PRODUCTS FOR MASONRY

★ X-L 100
Powdered concrete plasticizer

★ For-Air
Concentrated air entraining agent

★ Integral Waterproofing Paste
Cuts concrete water absorption

★ Forrer's KCS - Kolor Control System
Colors match - batch after batch

National Sales Representatives for:

RAMSEY PRODUCTS

★A.B.C. Automatic Batching Controls.
Completely automatic weighing, mixing and handling

★Sand Moisture Probe.
Measures sand moisture content

★Moisture Meter.
Regulates water in concrete mix automatically

★Calcium Chloride Dispenser
Automatic batching control.

Forrer's
PRODUCTS FOR MASONRY

'59 Builders Survey Is Generally Optimistic

Home builders, in May, generally were optimistic about their operations. The sales price of the typical new home being built this year is a little lower than last year, and the home is slightly larger.

These are the highlights of the first survey of 1959 of the Builders' Economic Council of the National Association of Home Builders. It is the seventh in a series since 1956.

The survey was made in May before changes in the money market again began tightening up the availability of mortgage money.

The optimistic forecast in May was predicated on the belief by the home builders that favorable housing legislation would be enacted by the Congress.

"Inventories are down, markets seem strong, and most of the reporting builders have protected themselves much better than in the past against tightening money by obtaining firm commitments for permanent financing on most of the units under construction, and in planning," the survey said.

Some 525 builders in all type operations and price classes and in all geographical regions participated in the survey. In their own operations they intend to build more than 60,000 new homes, an increase of about 40 percent over 1958. In December, the same group estimated it would increase production for 1959 by only 32 percent.

The sales price of the typical new house being built by BEC members is nearly $14,000, slightly less than the sales price of their 1958 home. The typical builder is constructing a house of about 1210 square feet, up about two percent from last year.

The survey showed a significant switch to building in the lower priced brackets. The $8,000-$9,999 bracket nearly doubled, and the middle bracket, $13,500-$14,999, showed a big increase.

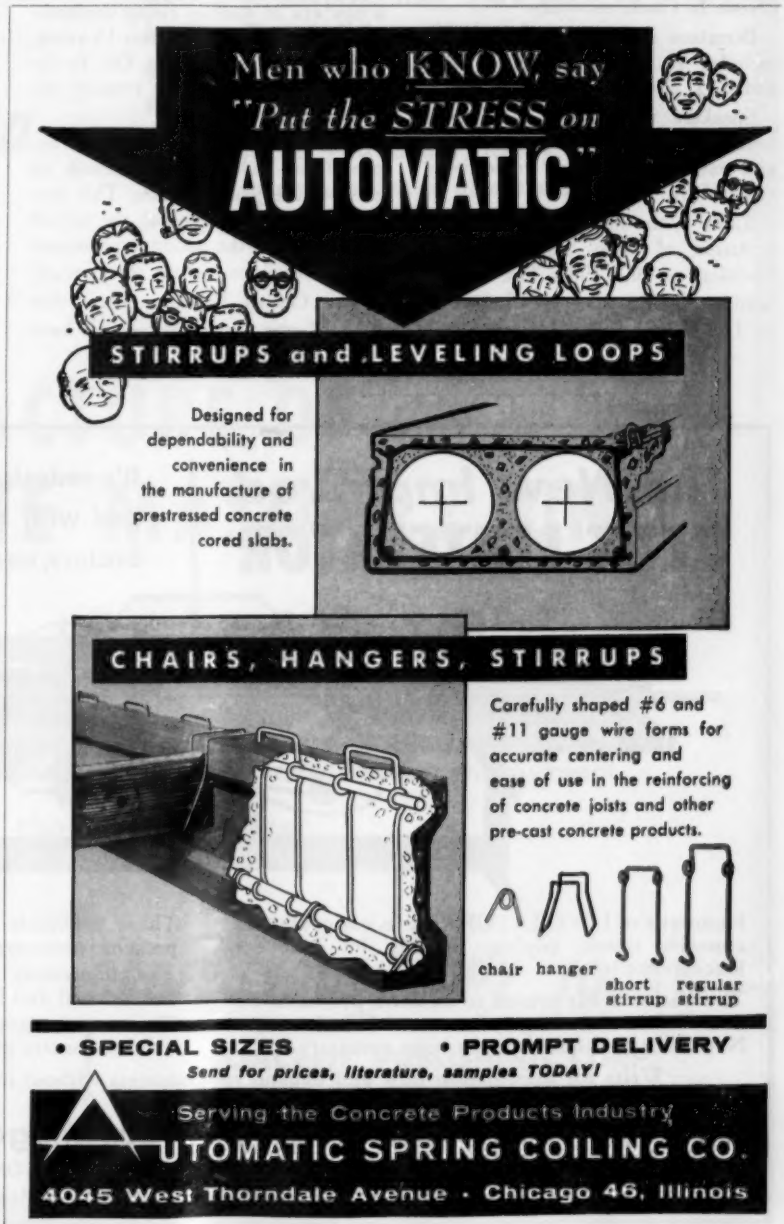
About three out of four builders expect the second half of 1959 to be as good or better than the first half, only one fourth of the builders expect starts to decline either nationally or in their own communities. Nearly six out of 10 think the overall sales market is better than a year ago, only one out of 10 thinks it worse. A surprisingly large number of those reporting, 36 percent, said there was a better market for higher priced homes than last year.

The survey disclosed, however, that an expected increase in the GI interest rate to 5¼ percent is a vital factor in maintaining production volume throughout the year. Builders accounting for 36 percent of the survey's 1959 total production said their plans were based, at least in part, on a GI interest rate increase.

Alpha Names New Southern Sales Manager

Manon DeShazo, Jr., has been named southern sales manager for the Alpha Portland Cement Co., Easton, Pa. He has been a salesman in the firm's Birmingham sales district.

As Southern Sales Manager, DeShazo will have his office at 1204 S. 20th St., Birmingham, Ala. He succeeds H. E. Brown who has recently elected vice president in charge of Alpha's Midwestern sales division.


Men who KNOW, say
"Put the STRESS on
AUTOMATIC"
STIRRUPS and LEVELING LOOPS
Designed for dependability and convenience in the manufacture of prestressed concrete cored slabs.
CHAIRS, HANGERS, STIRRUPS
Carefully shaped #6 and #11 gauge wire forms for accurate centering and ease of use in the reinforcing of concrete joists and other pre-cast concrete products.
chair
hanger
short stirrup
regular stirrup
• SPECIAL SIZES
• PROMPT DELIVERY
Send for prices, literature, samples TODAY!
Serving the Concrete Products Industry
AUTOMATIC SPRING COILING CO.
4045 West Thorndale Avenue • Chicago 46, Illinois

Huth Elected To Head Ohio RMCA

L. L. Huth, of Huth Ready Mix & Supply Co. of Massilon, was elected president of the Ohio Ready Mixed Concrete Assoc. at the annual meeting held in Cincinnati on June 24-25.

With 178 attending, this was one of the group's largest meetings in point of attendance.

Other officers elected were George F. Goetz, of Cleveland's Clifton Concrete & Supply Co., vice president; Ralph Anderson of Anderson Concrete Corp., Columbus, treasurer; and Claude L. Clark, secretary.

Directors selected for three years included E. E. Osborn, Walt Kunz and C. J. French.

Speakers included F. E. Schouweiler and Vince Ahearn, president and executive secretary respectively of NRMCA.

Talks at the meeting were "Interpretation of Ohio Supreme Court Decision on Ohio Sales Tax as Pertaining to RM Concrete Industry" by J. K. Horne of J. K. Horne & Son Co., Struthers; "Gasoline Tax Refunds" by Ed Pitzer of Hillton Concrete Co. of Cincinnati; and "Your Public Relations—Good or Bad" by Roger H. Slugg, Hamilton Gravel Co. of Hamilton.

Report Sees 15 Year Growth For Building

Population pressures will usher in a new era of steadily rising construction activity during the next 15 years, declares The Milwaukee Co. in its June report to investors recently released.

It points out that construction expenditures have set new records in each of the past 14 years. This feat is particularly impressive, the report adds, because the nation experienced three recessions during this period.

The Census Bureau reports that by 1975 the United States will have 78 million more people than in 1955, according to the investment firm. "The number of school age children is expected to soar almost 50% by 1975. This will dictate the need for a tremendous school building program."

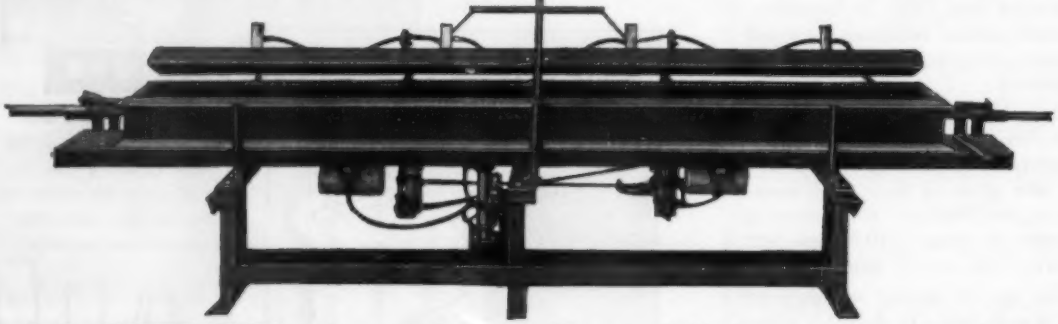
Requirements for additional hospital, airport, shopping, water supply and sewer facilities will place heavy demands on the construction industry, the report says. The 41,000 miles of interstate highway the Federal government expects to complete by 1975 is already contributing to the industry's growth.

In showing how important construction is to the American economy, the investment firm says that new building volume during 1958 was $49 billion, or more than 10% of the nation's gross national product last year. And it adds that construction so far this year is running 13% ahead of 1958 and could "reach a record-smashing $54 billion."

The investment firm suggests that construction stocks are attractive today because of the industry's growth.

The New Improved KENT LINTELATOR

It's redesigned, built heavier, equipped with additional heavy duty vibrators, easier and faster to operate.



Hundreds of LINTELATORS are in use producing concrete lintels, coping, parking lot bumpers, fence posts, etc.

The business has proved to be extra profitable because it has come largely from established sources. New sales methods have not been necessary.

These profitable items can be used by almost all present customers.

The interesting story can open doors that have been closed and increase your list of purchasers.

The new improved LINTELATOR now in production assures even greater satisfaction and profit.

Write for information now and expand your business without increasing your headaches.

The KENT MACHINE CO. Cuyahoga Falls, Ohio, U.S.A.

SUBSIDIARY OF THE LAMSON & SESSIONS COMPANY

Canadian Distributor: Wettlaufer Equipment, Ltd., 49 Morton St., Toronto 12, Ontario

HUNDREDS HAVE ORDERED!

MANY HAVE RE-ORDERED ON SEEING IT!

Block producers who have bought the Second Edition of William Grant's famous book are lavish in their praise of the new material included and the updating of subjects that were covered in the first edition. Many have reordered enough copies for each of their key people.

We suggest you order today on a money-back guarantee of satisfaction. Payment with your order please.

NEW ENLARGED SECOND EDITION

MANUFACTURE OF CONCRETE MASONRY UNITS

by WILLIAM GRANT

More Pages • More Subjects Covered • More Illustrations Charts and Tables • More of Everything that Made the First Edition the Most Popular Book on the Subject Ever Offered the Block Producer.

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PAYMENT MUST ACCOMPANY ALL ORDERS

Dodson's Digest

LET GEORGE DO IT

My friend George Matthews is a do-it-yourself bug. Wallpapering. Plumbing. Wiring. You name it . . . George knows all the answers. And his usual remark is, "Any fool can do it." To tell you the truth, George has always made me feel just a little bit inadequate.

But I paid George a visit a couple of weeks ago, and it did my ego a world of good. The steps to his front door were gone . . . and I thought to myself, "Here's my chance to tell *George* how to do something."

"Hey," I shouted, "lower the drawbridge."

"Come around to the back door," he called back.

First thing I said when I saw him was, "You need some front steps."

"You don't say!" he answered.

"Considered concrete?" I asked.

"Plan on it," he said.

"Well now, George, let me give you a helpful hint. Don't use a mix without Calcium Chloride."

"Got it on my list, Dod," he said.

"Your steps will set twice as fast," I continued, "and . . . "

"Depends on how much Calcium Chloride you use," he broke in.

"Well, a pound per bag of cement is pretty standard when the temperature is above seventy," I told him.

"I've worked a much better proportion, Dod," George said.

Maybe he had, but he never got a chance to tell me about it, because right then a truck pulled up behind my car in the drive. "You the guy who ordered these pre-cast steps?" the driver bellowed.

— L. D. DODSON

P.S. — Our booklet, "How To Make Better Concrete Products and Ready Mix" is filled with helpful hints. Write for your copy. *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in principal cities.*

Wyandotte CHEMICALS

MICHIGAN ALKALI DIVISION
HEADQUARTERS FOR CALCIUM CHLORIDE

Safety Meeting

Continued From Page 21

Of course, when the boss is not around, we sneak in a reel or two of "Training Films" which we rent locally for a slight fee.

The first part of the program runs for one hour — from 7:30 to 8:30. We are careful to always start on time. Anyone who comes in late is fined 50c which goes into the "Coke Fund." Make a point to fill the front seats first. No speaker likes to talk to a bunch of empty seats. Place all department heads in the front row immediately in front of the speaker. Each one will have a pad on which he has written a list of things he wishes to discuss. Also a report on his own department.

We begin the meeting by welcoming any new employees and explaining to them the reasons for having a monthly safety meeting, also a company rules book.

Round Table

Now comes what is probably the most important part of the whole evening. It is always interesting — sometimes exciting. We have what we like to call a Round Table.

I explain that this particular part of the meeting is for any employee, no matter who he is, to let down his hair and get off his chest any gripe he may have against the company or any supervisor who works for the company. I keep quiet and the boss keeps quiet until each man has spoken his piece.

We go all around the room and give every person there a chance to be heard. I make notes on things that they feel are wrong or where some improvement can be made. Then these notes are carefully gone over with the proper person, preferably on the day following the meeting. Immediate action is taken, if a complaint is justified, and a correction is made.

Then we ask for suggestions as to what we can do for greater efficiency around the plant or during the delivery of concrete. What can we do to improve customer relations? What are our customers saying about us? Every idea or suggestion is noted and a careful study is made to determine if it will improve efficiency or make for better public relations. Every now and then you get a really good one.

Every driver considers himself a part of the team. And the competitive spirit is really there. Each one tries to outdo the other in making our team the best team in town. The morale of these boys is really wonderful. I hear many times from other producers that they have problems which we don't even know exist. Like stopping along the way for a beer or coffee.

I can't say that our boys never do it — sure they have, on rare occasions. But not when we are busy and have orders to get out. Instead each driver tries to beat the other one back to the plant. And you should hear them get together and compare notes at the end of a busy day: "I hauled 55 yards today." "That's nothing, I hauled 65 yards."

And so it goes. Like they were in a contest and trying to win a prize or something.

No Late Arrivers

Would you believe it if I told you that in the years that I have been dispatching trucks for Herb, no driver, to the best of my knowledge, has ever been late for work even once. We're quite proud of this. These fellows are really on the ball. Believe me.

We cut this part of the meeting off promptly at 8:30, if at all possible. Then I call on each department head to come to the front of the room, face the audience, and make his report. The shop foreman will discuss a wide variety of things with special emphasis on how the boys are taking care of their equipment.

If a truck driver thinks the mechanic is not doing his job properly, he will say so. This is where we earnestly listen for any gripes on such things as tires, brakes, power steering, etc.

The plant superintendent will then get up front and perhaps ask for more cooperation from the drivers on this or that — and usually get it. Or the driver will tell the batch man to please stop splashing concrete from the plant mixer on his clean cab. And so it goes.

The bookkeeper will report on tire cuts for each truck in the fleet for the past month, using a blackboard and listing each truck from high to low.

If the same truck shows a consistently high tire cut per 100 miles, we try to find out why. Ray also reports on the Coke Fund — any profit.

Dispatching Problems

I am the head dispatcher and I try to explain some of the many problems we have in the office in an effort to get out each order on time and try never to be late on the job. I will explain proper radio procedure to the new men and how we must know where every truck is at every minute of the day and exactly what it is doing.

This job of dispatching is a tough one, and if the driver knows some of the things we are up against in this department he will have a better understanding of the over-all operation and will do a better job.

It is now 9:30 and time for a 5 minute break. After this, the boss speaks for a few minutes. He makes suggestions for genuine over-all improvement. Then he will report on jobs we are trying to sell and results of efforts during the past month. We feel that each employee is entitled to know the score and exactly where we stand.

Awards

We always close this part of the meeting by singling out one or more employees, sometimes drivers, sometimes plant employees, who have done an outstanding job since the last regular meeting. The boss likes to have this man or men whichever the case may be, come up before the audience and receive congratulations and a pat on the back for a job well done.

In many cases a cash prize is given, or it may be a cigarette lighter engraved with his name. We have given out wrist watches, radios, and other prizes for an outstanding job.

Whenever we receive a letter or telephone call from a customer telling us that a certain driver did something he liked, we are very careful to show some kind of recognition at the next meeting. We feel that this is very important. And it pays off, too!

Now its 10 o'clock and the business meeting is over. Everyone rushes to the refrigerator for a cold beer. Always with this we serve pretzels, potato chips, cheese, etc. And plenty for everybody.

Free Films

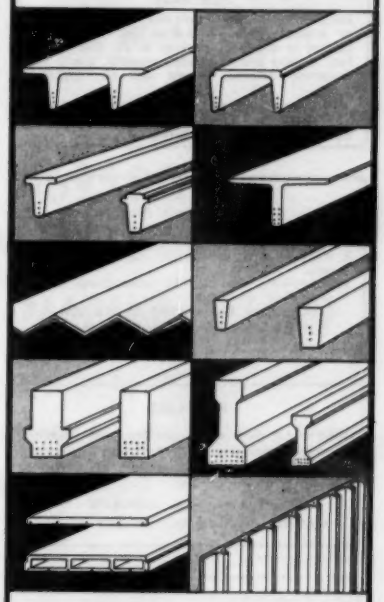
Within 5 minutes every man is again in his seat and the movie begins. We use a 16 mm. sound projector and obtain films — usually free — on all sorts of subjects from a booking agency in Cleveland. All we have to pay is the postage both ways. The film lasts, usually, 25 or 30 minutes and then the real bull session begins.

Before 11 o'clock, half the crowd has gone and in another 15 minutes I am the only one left.

Where do the boys go? You may not believe this, but they are home in bed in 30 minutes. Congenial, happy, well-fed, and satisfied that the evening has been constructive — and fun, too.

Yes, sir — we sincerely believe that these meetings pay off in improved morale and a clearer, better understanding in relationships between employees and management.

produce pre-cast buildings and bridges with LEAP* prestressed concrete products . . .



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FREE Folder A59 showing LEAP standard structural products

CATALOG Giving table of loadings, Physical Properties and photos Price: $2.00

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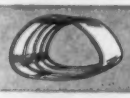
No Matter What SIZE... No Matter What SHAPE... 

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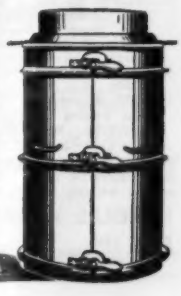

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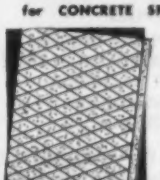

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"Extracoated" glove cut costs 77%

No. 362 Grappler Palm coated safety cuff

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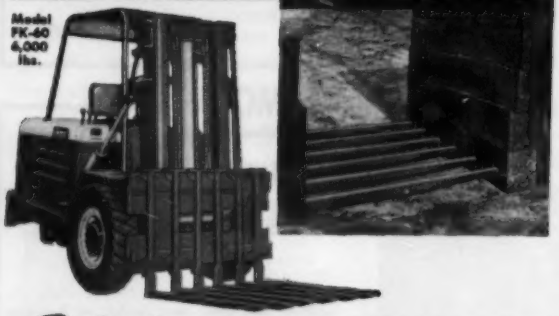

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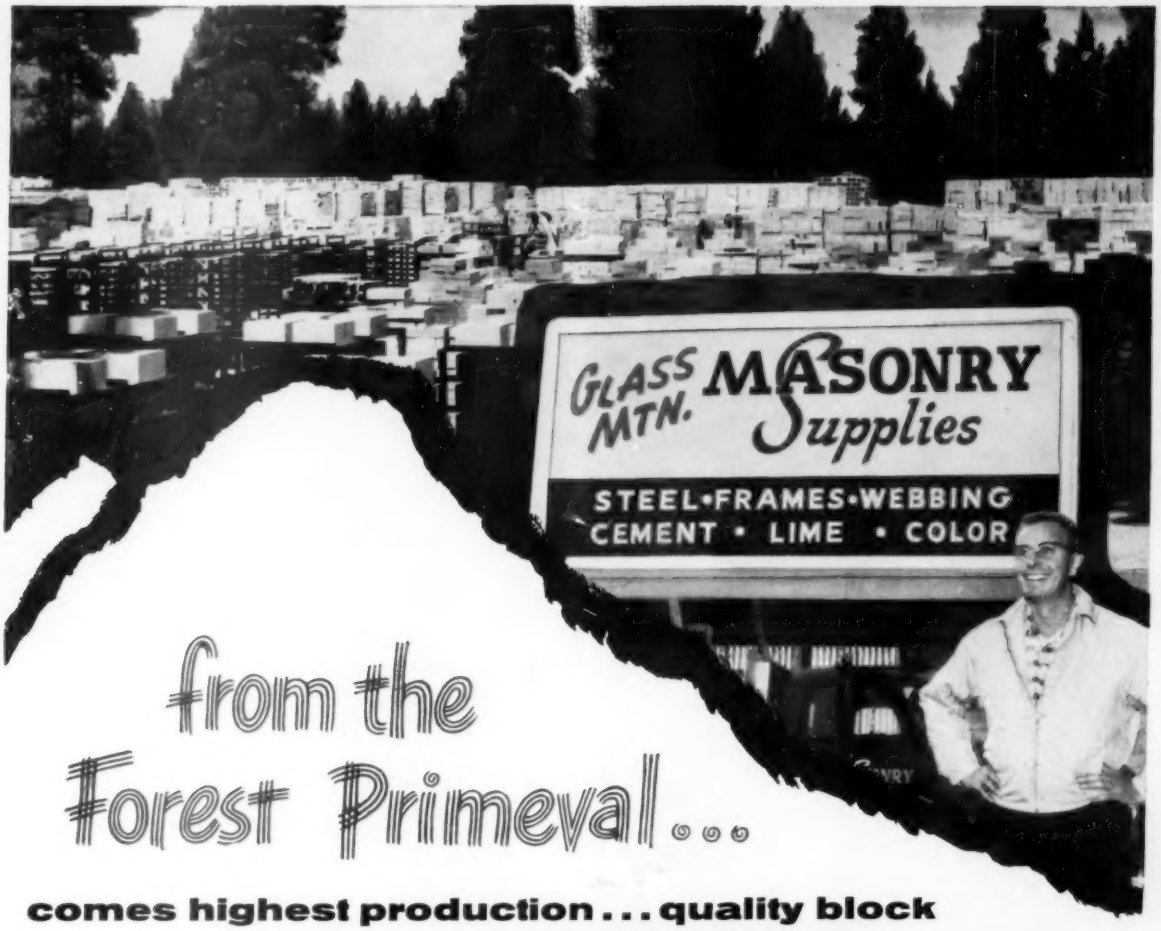

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The complete Stearns equipped block machinery installed at Glass Mtn. Block Inc., Tulelake, Calif.

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For more information use postcard facing page 48.

to help you make quality concrete block faster... and at lower cost...

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for anyone interested in the concrete block industry

(above) Practical demonstrations are a feature of the school.

(left) Students in Materials and Methods' class, quartering, weighing, screening, and analyzing aggregates.

(lower left) Typical class in the Besser School. Lecturer explains the electrical control box of the Besser Vibrapac.

(above) Electrical maintenance session at the Besser School.

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